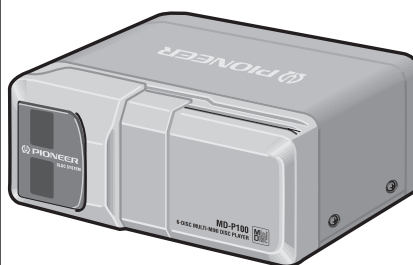


Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
CRT2203

6-DISC MULTI-MINI DISC PLAYER

MD-P100

EW



● US and foreign patents licensed from Dolby Laboratories Licensing Corporation.

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Wheelock Place, Singapore 23880

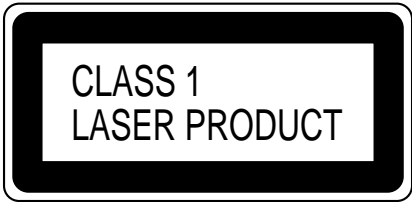
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K-FEA. APR. 1998 Printed in Japan

1. SAFETY INFORMATION

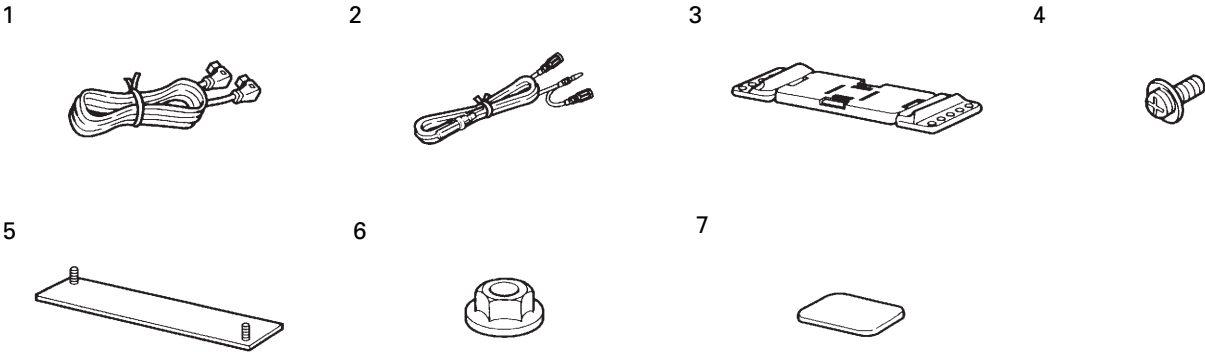
This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.



2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



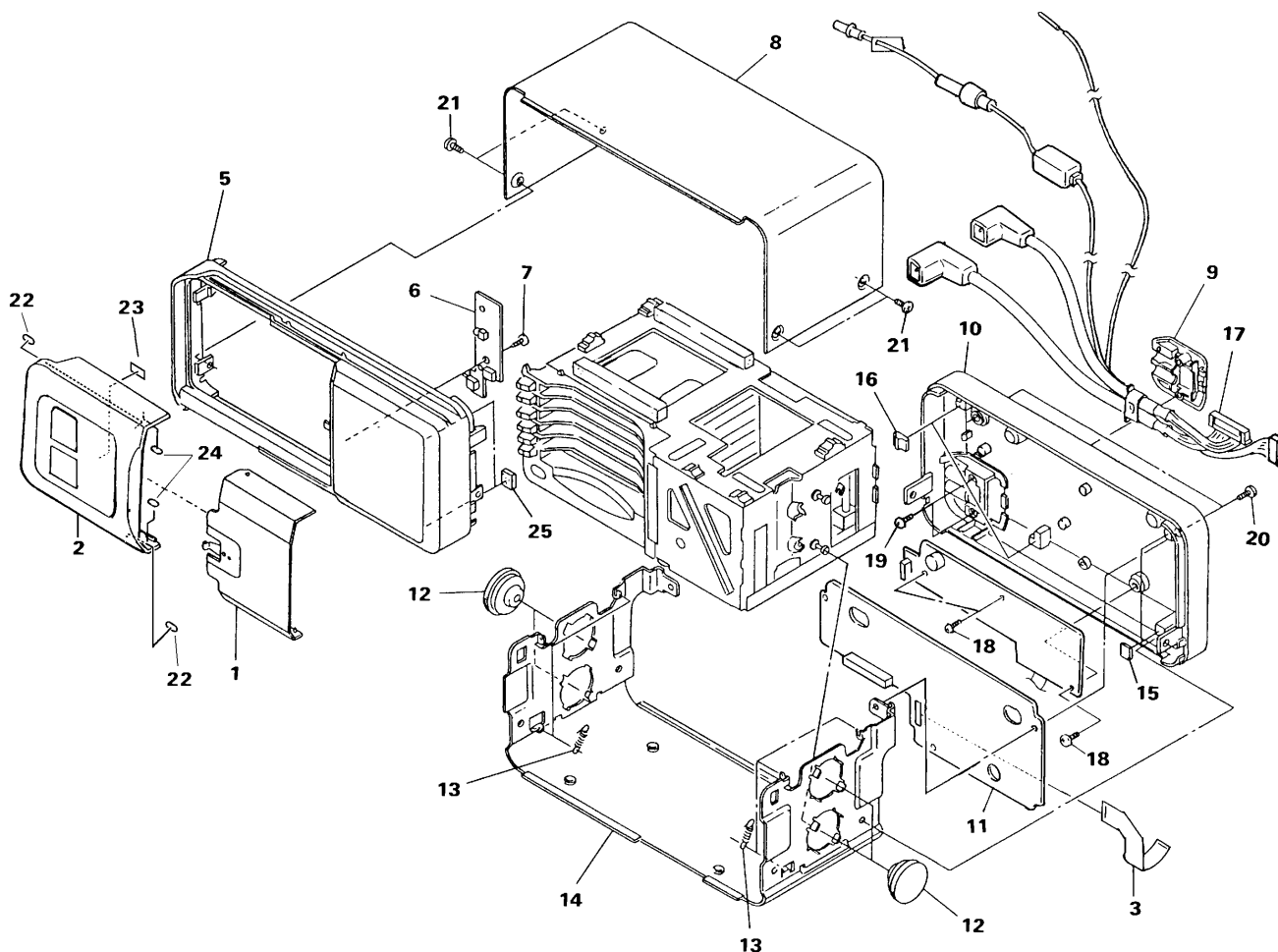
NOTE:

- Parts marked by "*"are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▽ mark on the product are used for disassembly.

● PACKING SECTION PARTS LIST

Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)	Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)
1	Cord	CZD3030	177777311		Owner's Manual (French, Italian, Dutch)	CZR3025	386206321
2	Cord	CZD3036	177777421		Installation Manual (English, Spanish, German, French, Italian, Dutch)	CZR3026	386206411
3	Base	CZN5122	393016311		Warranty Card	CZR3027	302285101
4	PSW	CZB3044	768296101	*			
5	Installation Base Assy	CZX3015	X33711782		Carton	CZH3047	302510901
6	Nut	CZB3043	430451111		Contain Box	CZH3048	302511001
7	Cushion	CZN5092	393016601				
	Cushion F	CZN5090	393561001				
	Cushion R	CZN5091	393561101				
	Owner's Manual (English, Spanish, German)	CZR3024	386206311				

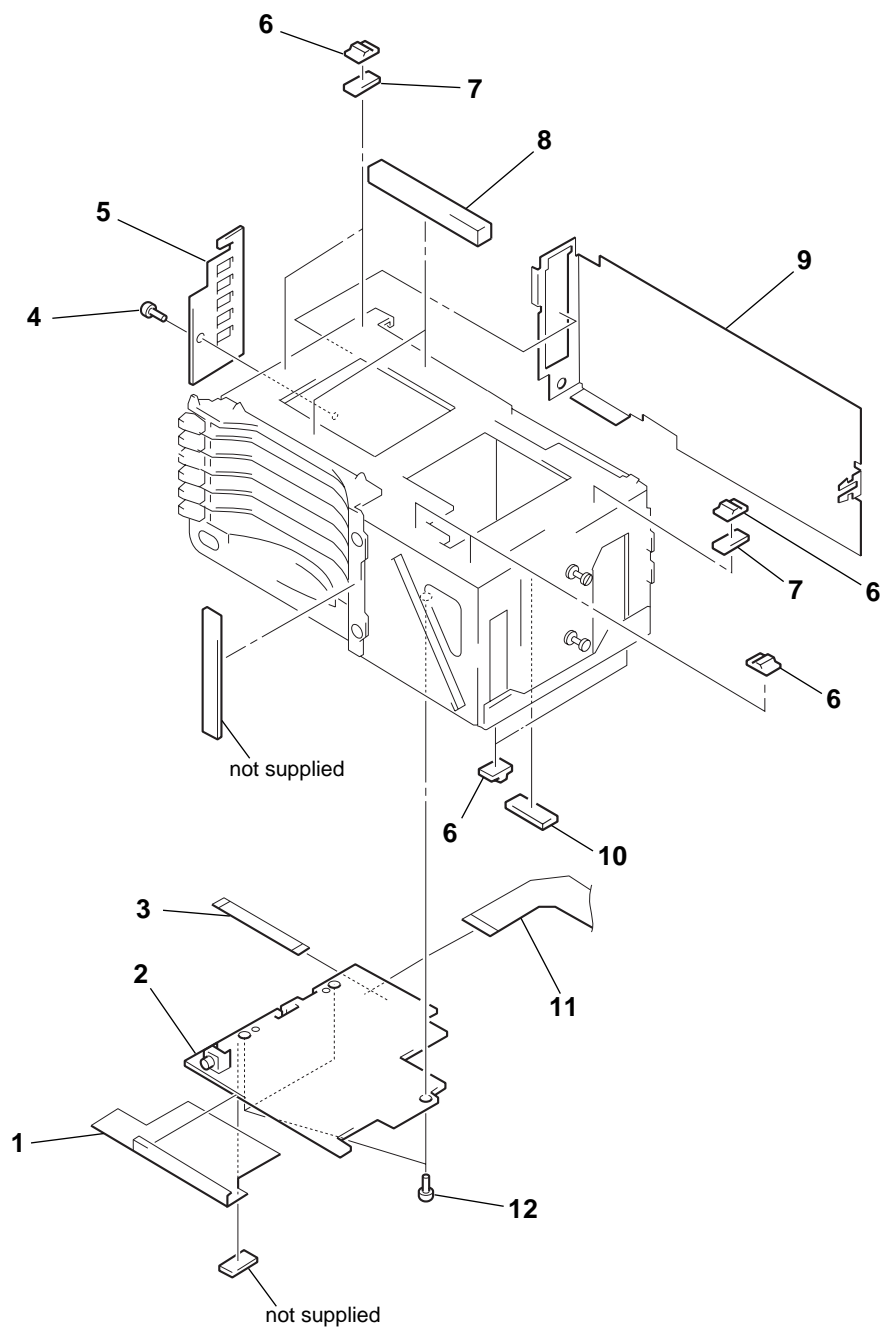
2.2 EXTERIOR



● EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)	Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)
1	Door Assy	CZX3010	X33727481	16	Cushion	CZN5068	334875003
2	Door Assy	CZX3067	X33752241	17	Cord	CZD3037	177777221
3	PCB	CZN5082	166294111	18	Self-Tapping Screw	CZB3041	768510411
4			19	Self-Tapping Screw	CZB3042	768513311
5	Front Panel Assy	CZX3068	X33752251	20	PTT	CZB3039	762177560
6	Lamp PCB	CZN5081	165888613	21	BVTT	CZB3037	391295611
7	Screw	CZB3036	390941201	22	Sheet	CZN5080	393374001
8	Case(Upper)	CZN5143	302296101	23	Cushion	CZN5079	383144111
9	Cover	CZN5086	393980701	24	Spacer	CZN5117	393074401
10	Rear Panel Assy	CZX3012	X33727471	25	Cushion	CZN5068	334875003
11	Power PCB Assy	CZW3061	A3222982A				
12	Damper	CZN5071	393017601				
13	Spring	CZB3038	393017701				
14	Case(Lower)	CZN5142	393017391				
15	Cushion	CZN5085	393169701				

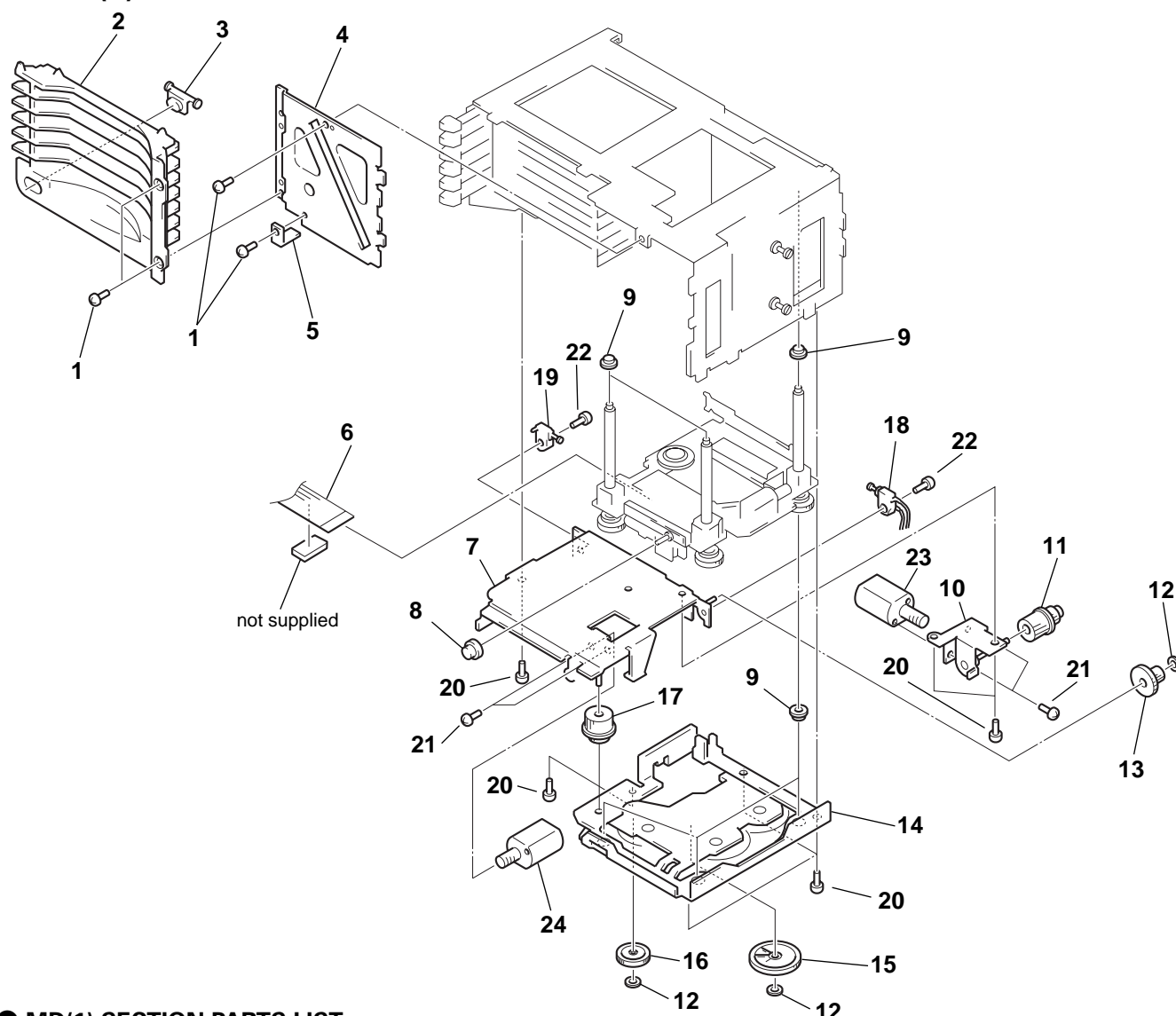
2.3 MAIN PCB



● MAIN PCB SECTION PARTS LIST

Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)	Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)
1	Sheet	CZN5073	393114901	6	Cushion	CZN5068	334875003
2	Main PCB	CZW3057	A3294102A	7	Cushion	CZN5069	371597301
3	Cable	CZD3029	177647411	8	Cushion	CZN5075	393169901
4	Screw	CZB3036	390941201	9	Sheet	CZN5072	393102503
5	Sensor PCB	CZN5087	165888413	10	Cushion	CZN5074	393169801
				11	PCB	CZN3100	166294211
				12	Screw	CZB3073	302397401

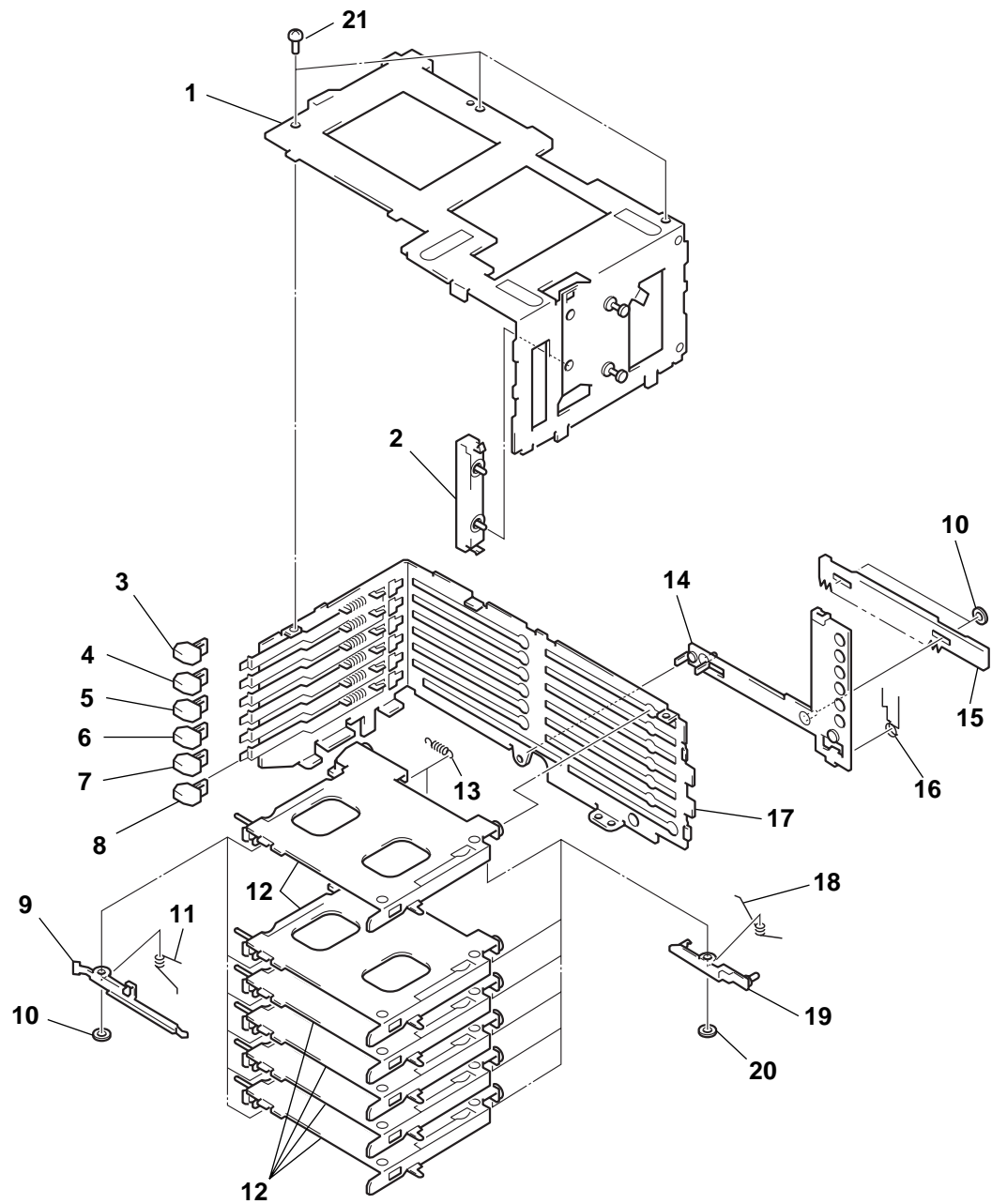
2.4 MD(1)



● MD(1) SECTION PARTS LIST

Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)	Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)
1	Screw	CZB3046	331755271	16	Gear(ELV2)	CZN5145	302038601
2	Escutcheon	CZN5098	393031413	17	Worm Wheel(ELV2)	CZN5147	302036301
3	Button(Stop)	CZA3022	393031902	18	Switch	CZS3038	157077111
4	Chassis(Front)	CZN5100	393032002	19	Switch	CZS3039	157077121
5	Plate	CZN5102	393136601	20	Screw	CZB3048	762785237
6	PCB	CZN5093	165888112	21	Screw	CZB3049	762755407
7	Chassis(Motor)Assy	CZX3069	X33746691	22	Screw	CZB3059	762785507
8	Collar	CZL3004	393031001	23	LD Motor Assy	CZX3076	X33715082
9	Bearing	CZN5096	393031202	24	ELV Motor Assy	CZX3077	X33748121
10	Plate(LD2)Assy	CZX3071	X33746731				
11	Worm Wheel	CZN5116	393036501				
12	Washer	CZB3065	337771911				
13	Gear(LD)	CZN5113	393031701				
14	Chassis(Bottom A)Assy	CZX3065	X33755301				
15	Gear	CZN5097	393031301				

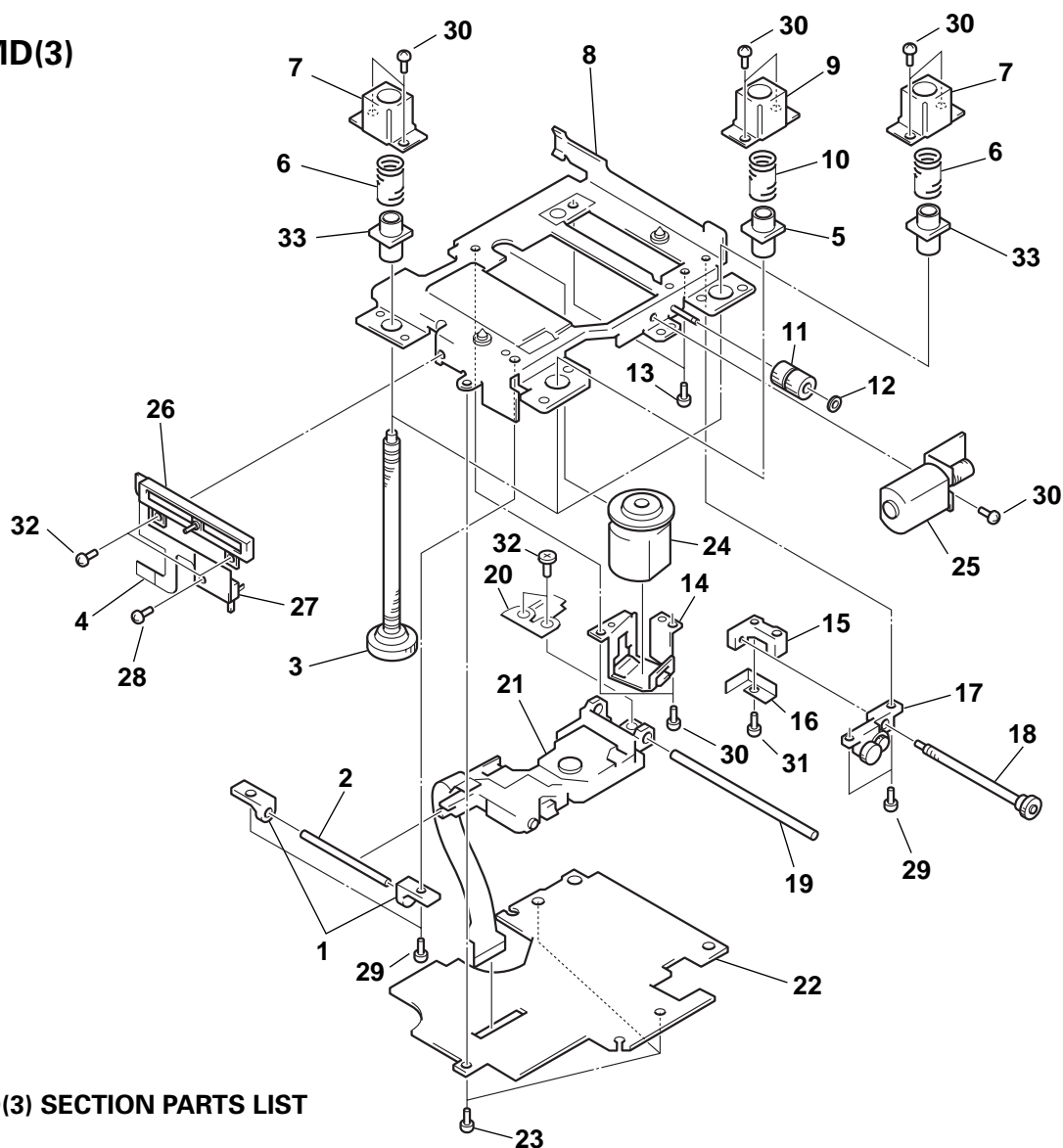
2.5 MD(2)



● MD(2) SECTION PARTS LIST

Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)	Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)
1	Chassis Assy	CZX3034	X33712093	11	Spring(EJ)	CZB3063	393035002
2	Guide(Holder 2)	CZN5144	302038801	12	Holder(Caddie)Assy	CZX3026	X33712165
3	Button(EJECT)	CZA3023	393031801	13	Spring(D Lock)	CZB3064	393035202
4	Button(EJECT)	CZA3024	393031811	14	Loading Slider 2 Assy	CZX3070	X33746722
5	Button(EJECT)	CZA3025	393031821	15	Rack>Loading)	CZN5115	393036601
6	Button(EJECT)	CZA3026	393031831	16	Spring	CZB3068	393036001
7	Button(EJECT)	CZA3027	393031841	17	Chassis(Rear 2)Assy	CZX3064	X33746712
8	Button(EJECT)	CZA3028	393031851	18	Spring(Lock)	CZB3062	393034901
9	Eject Lever	CZN5112	393035401	19	Plate(Holder)Assy	CZX3027	X33712195
10	Washer	CZB3065	337771911	20	Washer	CZN5111	302151101
				21	Screw	CZB3048	762785237

2.6 MD(3)



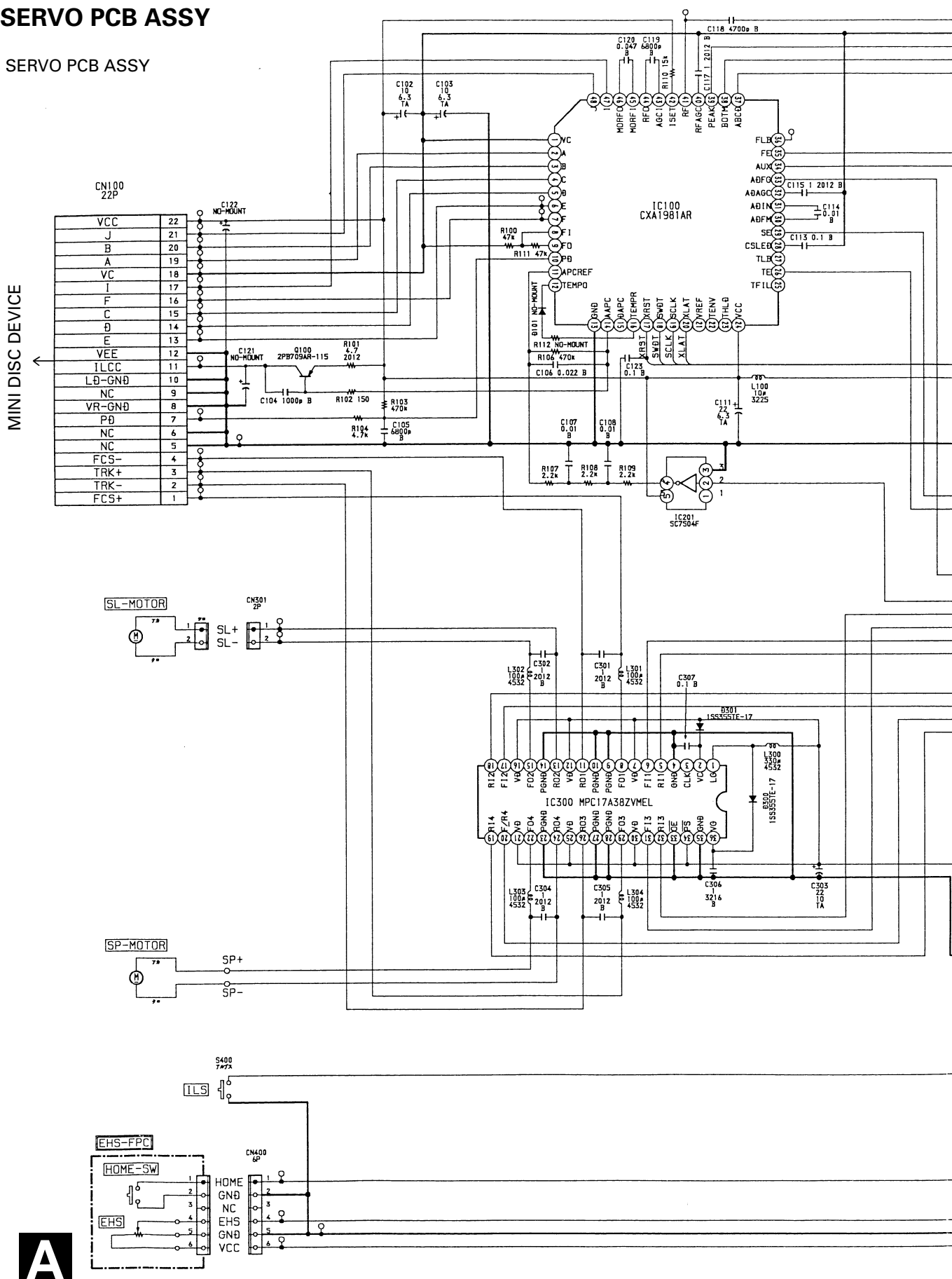
● MD(3) SECTION PARTS LIST

Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)	Mark No.	Description	Part No. (PIONEER)	Part No. (SONY)
1	Holder	CZN5106	393033801	16	Spring	CZB3052	393033501
2	Guide(OPB)	CZL3003	393033201	17	Holder	CZX3022	X33712131
3	Screw Assy	CZX3037	X33712122	18	Screw	CZX3023	X33712141
4	PCB	CZN5064	165888011	19	Guide(OPA)	CZL3002	393033101
5	Sleeve(ELV)	CZN5103	393033302	20	Spring	CZN5105	393033701
6	Spring(ELV)	CZB3051	393033401	21	Mini Disc Device	CZG3005	858303501
7	ELV Limiter Plate B	CZN5110	393034501	22	Servo PCB Assy	CZW3054	A3222980A
8	Chassis(OP)Assy	CZX3024	X33712152	23	Screw	CZB3054	393275501
9	ELV Limiter Plate A	CZN5109	393034402	24	SP Motor	CZX3019	A3291507A
10	Spring	CZB3053	393071101	25	SL Motor Assy	CZX3020	A3291508A
11	Worm Wheel	CZN5107	393033901	26	Slide Variable Resistor	CZC5118	122381712
12	Washer	CZB3050	333864531	27	Switch	CZS3039	157077121
13	Screw	CZB3070	393034301	28	Screw	CZB3059	762785507
14	Plate	CZN5108	393034202	29	Screw	CZB3056	762785227
15	Holder(SLB)	CZN5104	393033601	30	Screw	CZB3055	762755218
				31	Screw	CZB3058	762785258
				32	Screw	CZB3048	762785237
				33	Sleeve(ELV2)	CZN5146	302035101

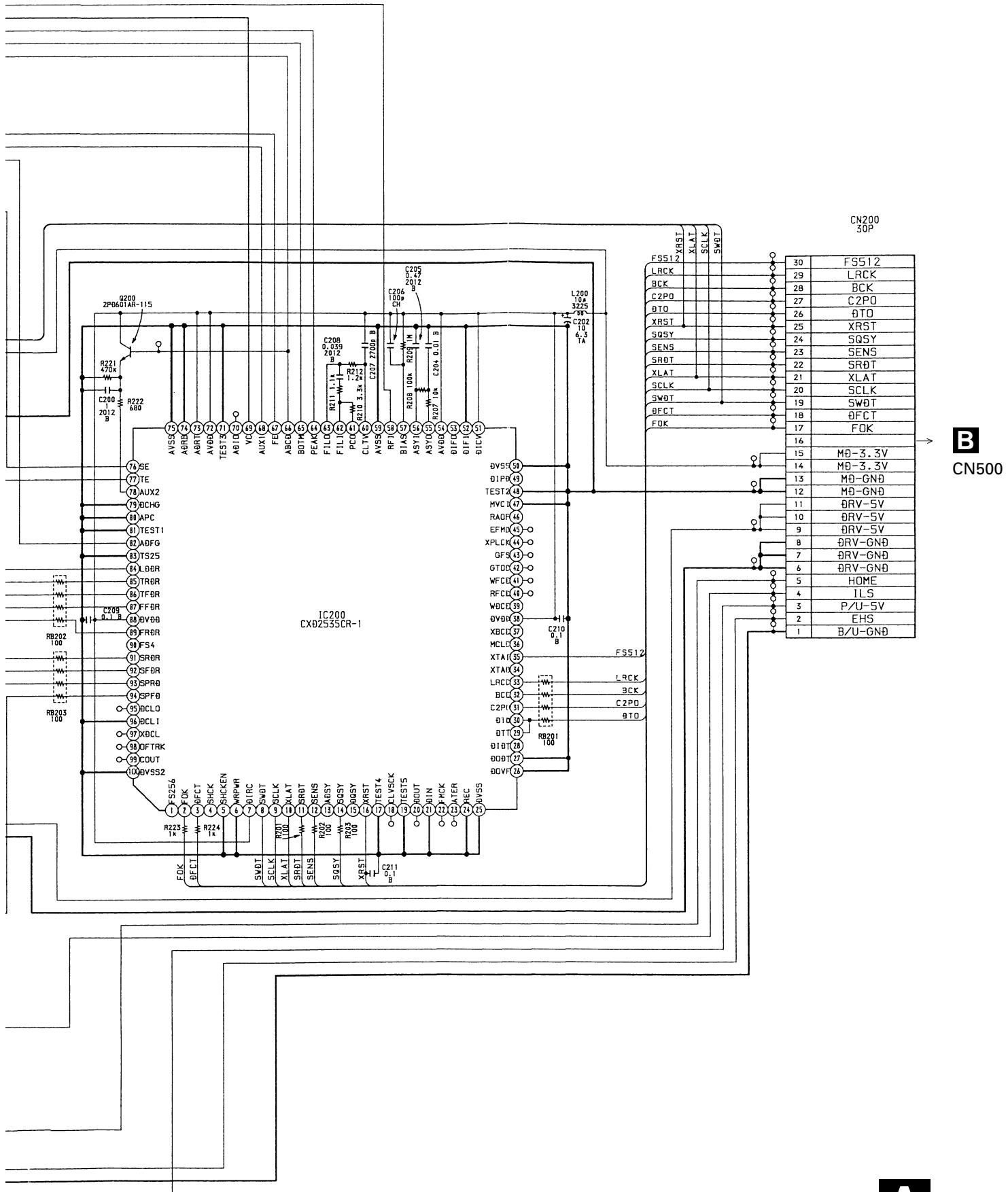
3. SCHEMATIC DIAGRAM

3.1 SERVO PCB ASSY

A SERVO PCB ASSY



Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A

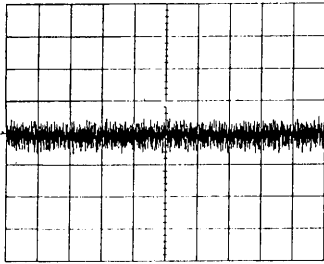
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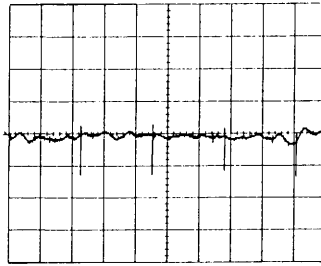
D

● Waveforms

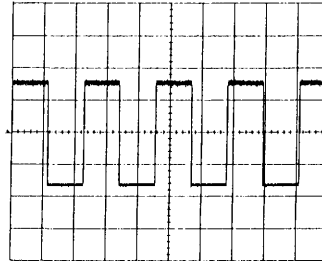
① IC100 ② (A) PLAY MODE
Approx. 200mVp-p, 500 μ s



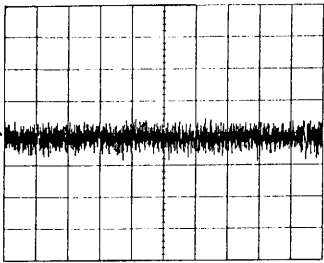
⑥ IC100 ⑤ (FE) PLAY MODE
Approx. 1Vp-p, 500 μ s



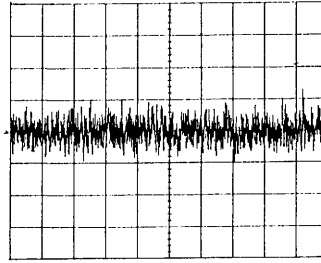
⑪ IC200 ③ (LRCK)
1Vp-p, 10 μ s



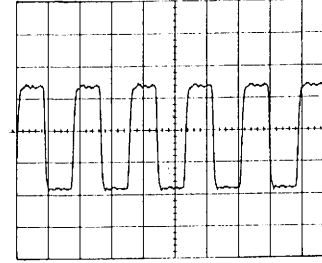
② IC100 ⑥ (E) PLAY MODE
Approx. 100mVp-p, 500 μ s



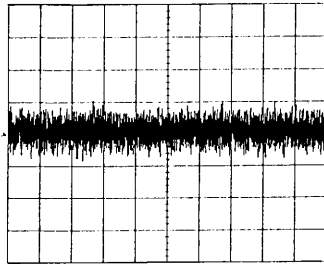
⑦ IC100 ⑥ (TE) PLAY MODE
Approx. 200mVp-p, 5 μ s



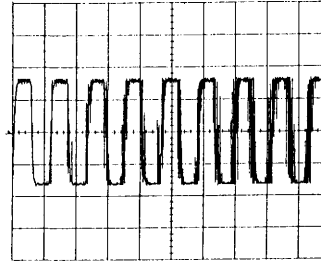
⑫ IC200 ② (BCK)
1Vp-p, 2 μ s



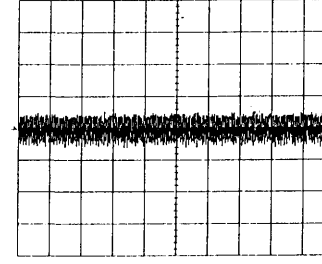
③ IC100 ⑦ (F) PLAY MODE
Approx. 100mVp-p, 500 μ s



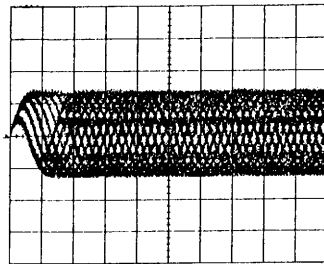
⑧ IC200 ④ (XPLCK)
1Vp-p, 200ns



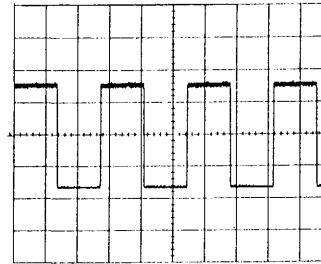
⑬ IC200 ② (FMCK)
100mVp-p, 2 μ s



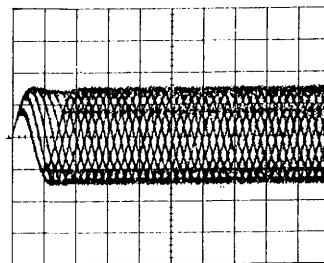
④ IC100 ⑦, ⑧ (J, I) PLAY MODE
Approx. 200mVp-p, 1 μ s



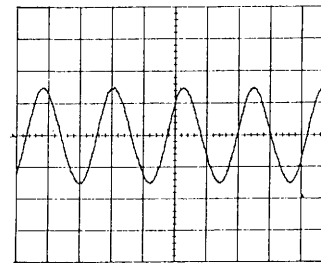
⑨ IC200 ① (WFCK)
1Vp-p, 50 μ s



⑤ IC100 ④ (RF) PLAY MODE
Approx. 500mVp-p, 1 μ s



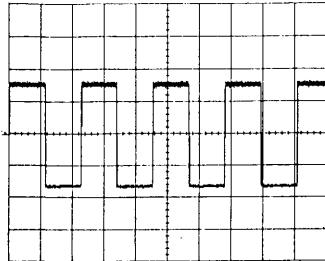
⑩ IC200 ⑤ (XTAL)
3Vp-p, 22.5792MHz



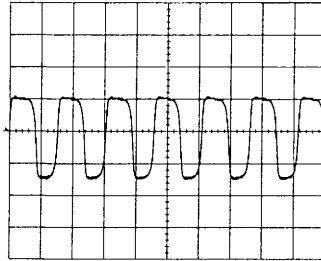
3.2 MAIN PCB

● Waveforms

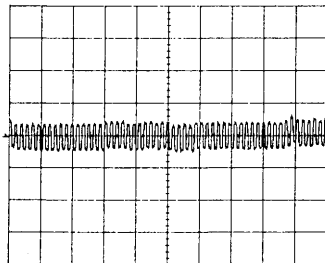
① IC500 ⑨ (LRCK)
1Vp-p, 10 μ s



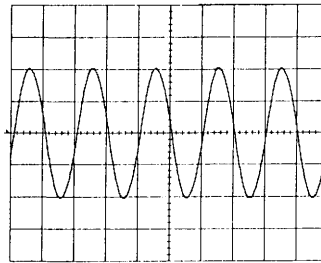
⑥ IC600 ④ (TX)
5.2Vp-p, 32.768kHz



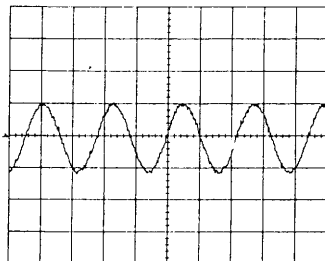
② IC500 ⑪ (BCK)
20mVp-p, 2 μ s



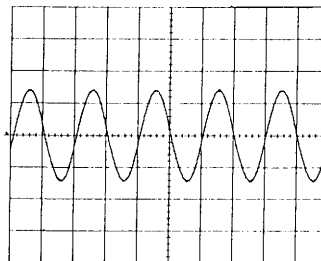
⑦ IC600 ② (XTAL)
4.2Vp-p, 10MHz



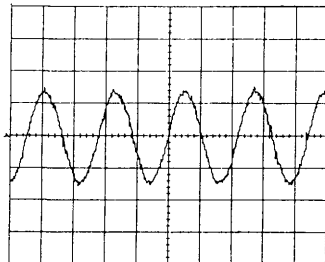
③ IC500 ⑦ (OSCI)
1.5Vp-p, 45.1584MHz



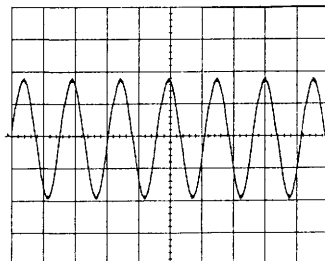
⑧ IC600 ③ (EXTAL)
2.9Vp-p, 10MHz



④ IC500 ③ (OSCO)
4Vp-p, 45.1584MHz

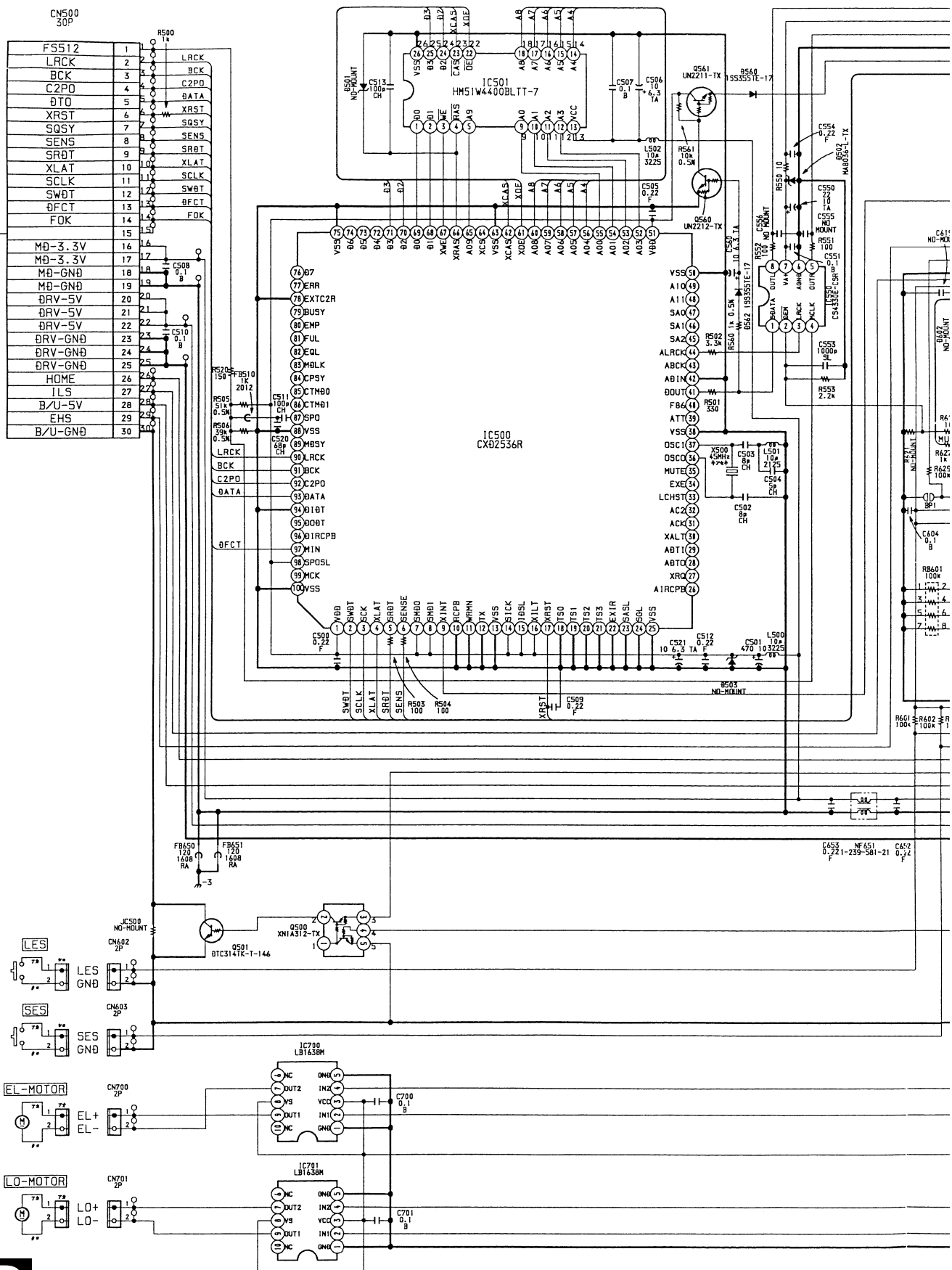


⑤ IC600 ⑤ (TEX)
1.9Vp-p, 32.768kHz



B MAIN PCB

A
CN200





C

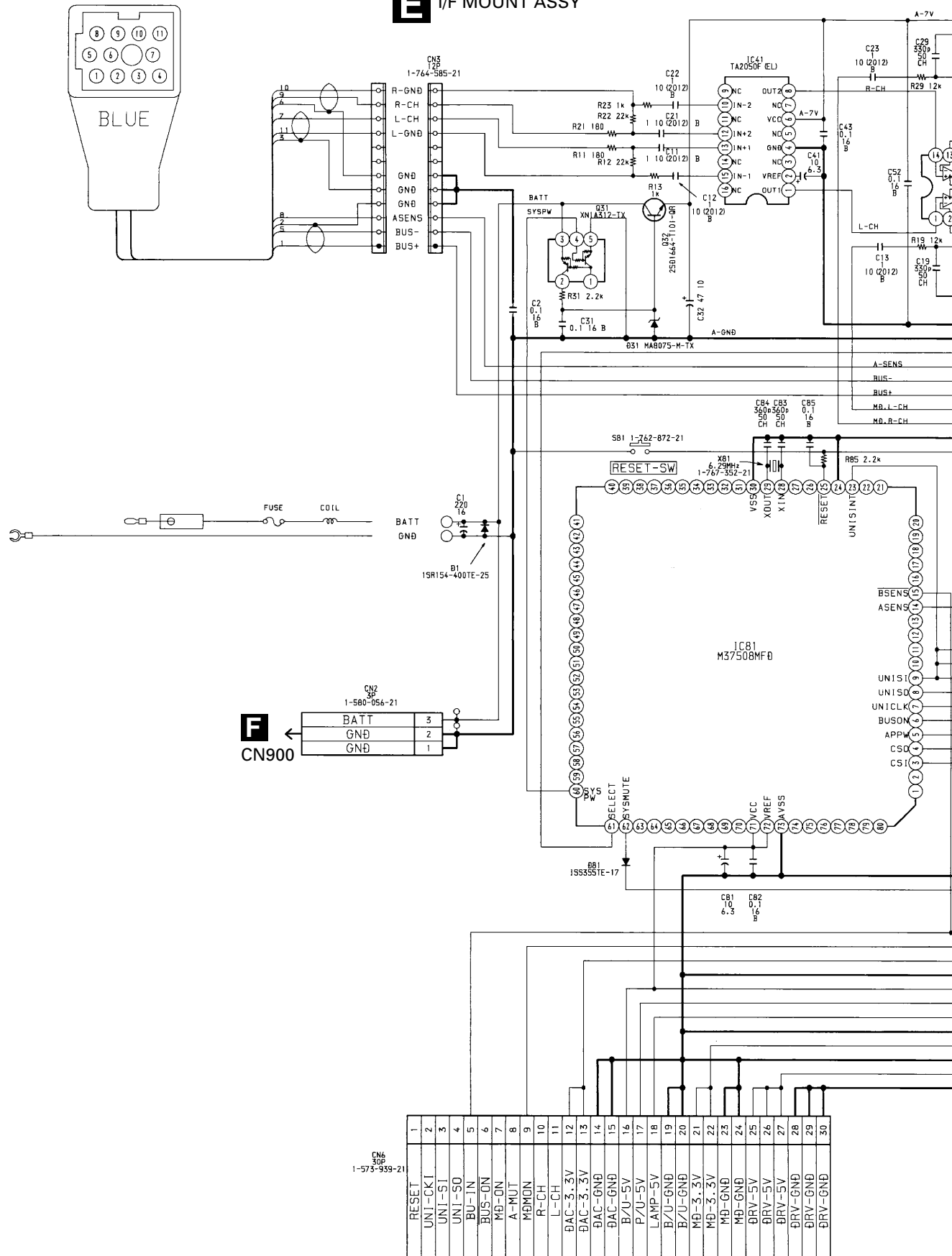
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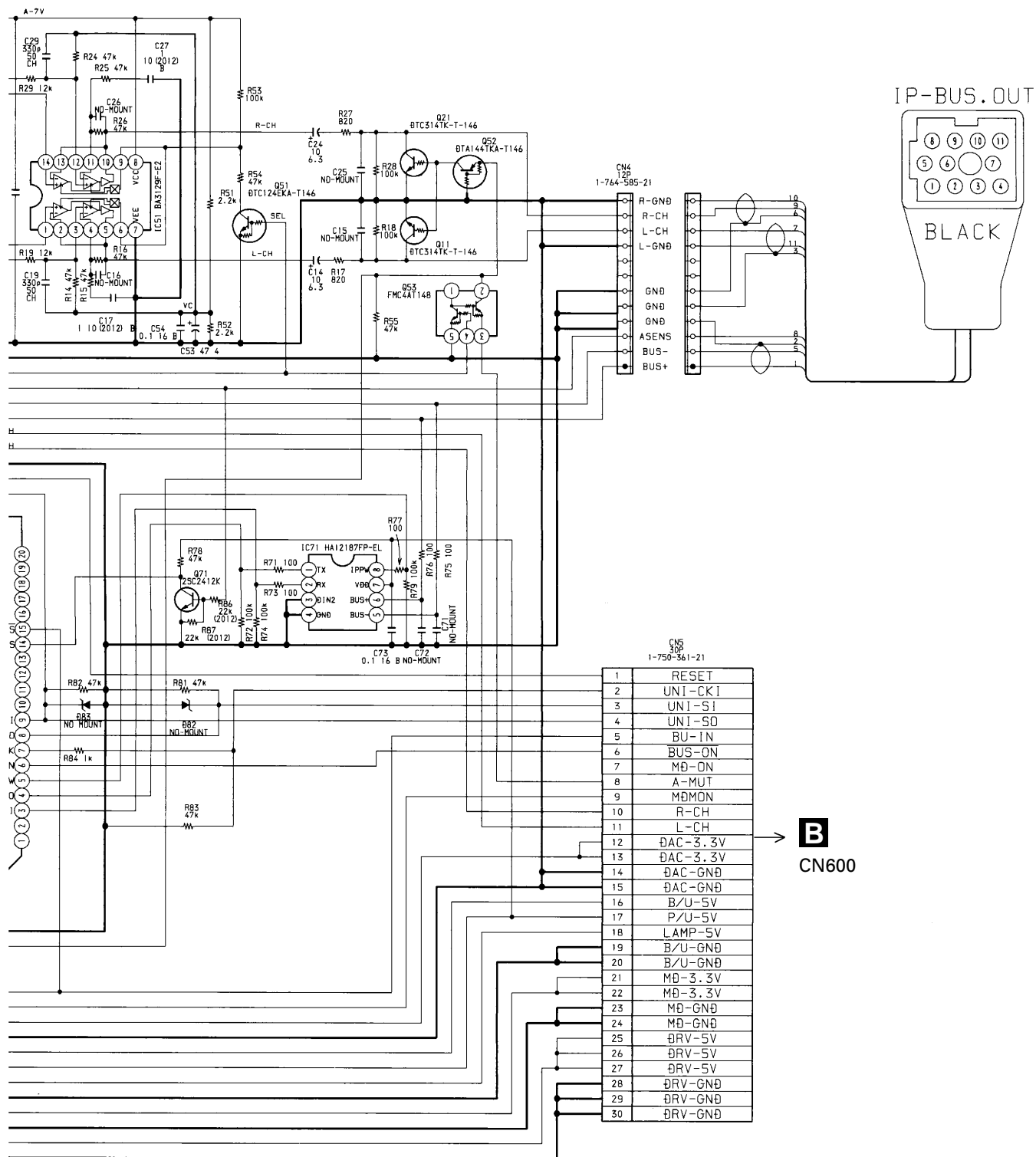
B C D

3.3 I/F MOUNT ASSY

IP-BUS.IN

E I/F MOUNT ASSY

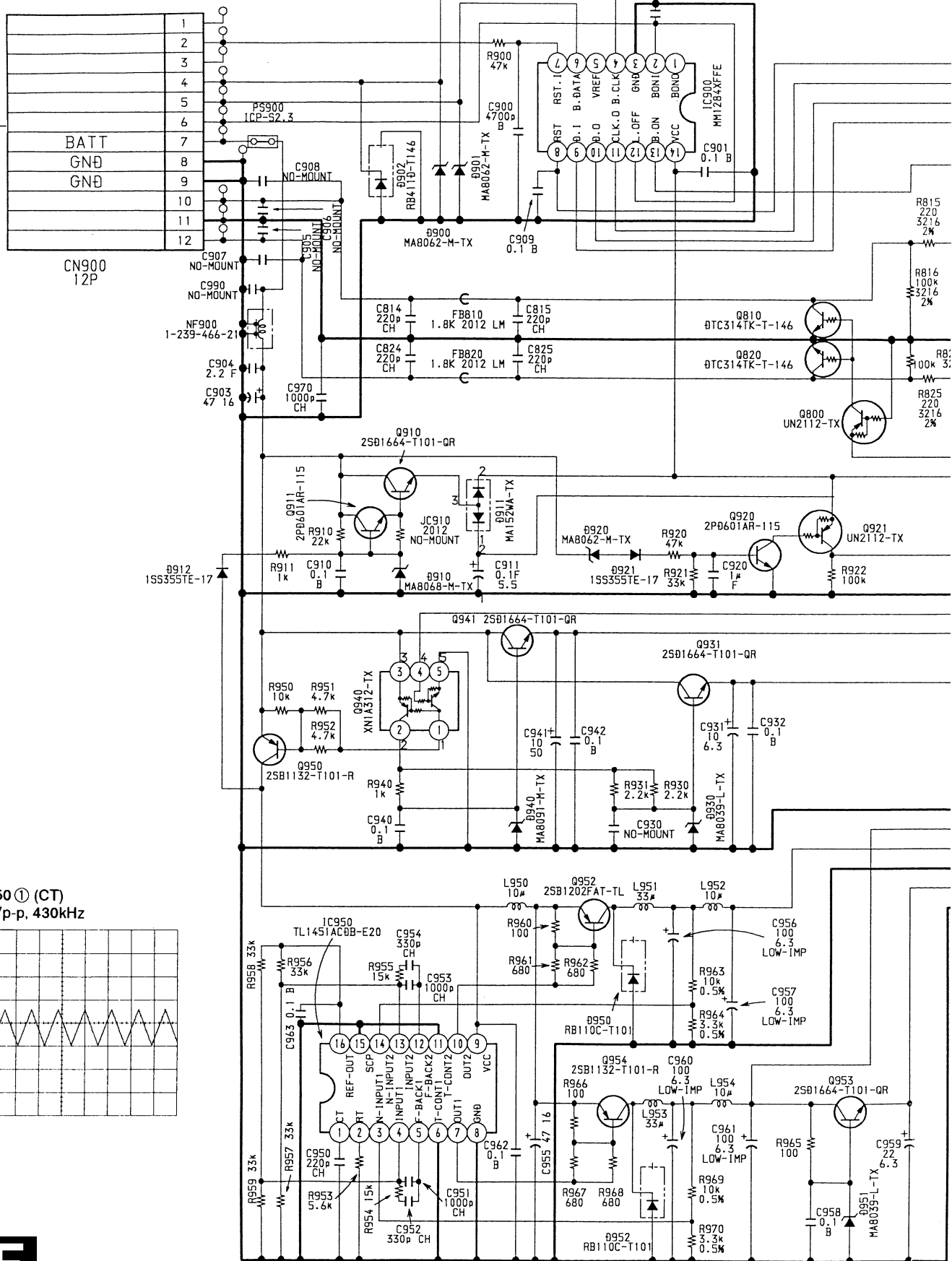


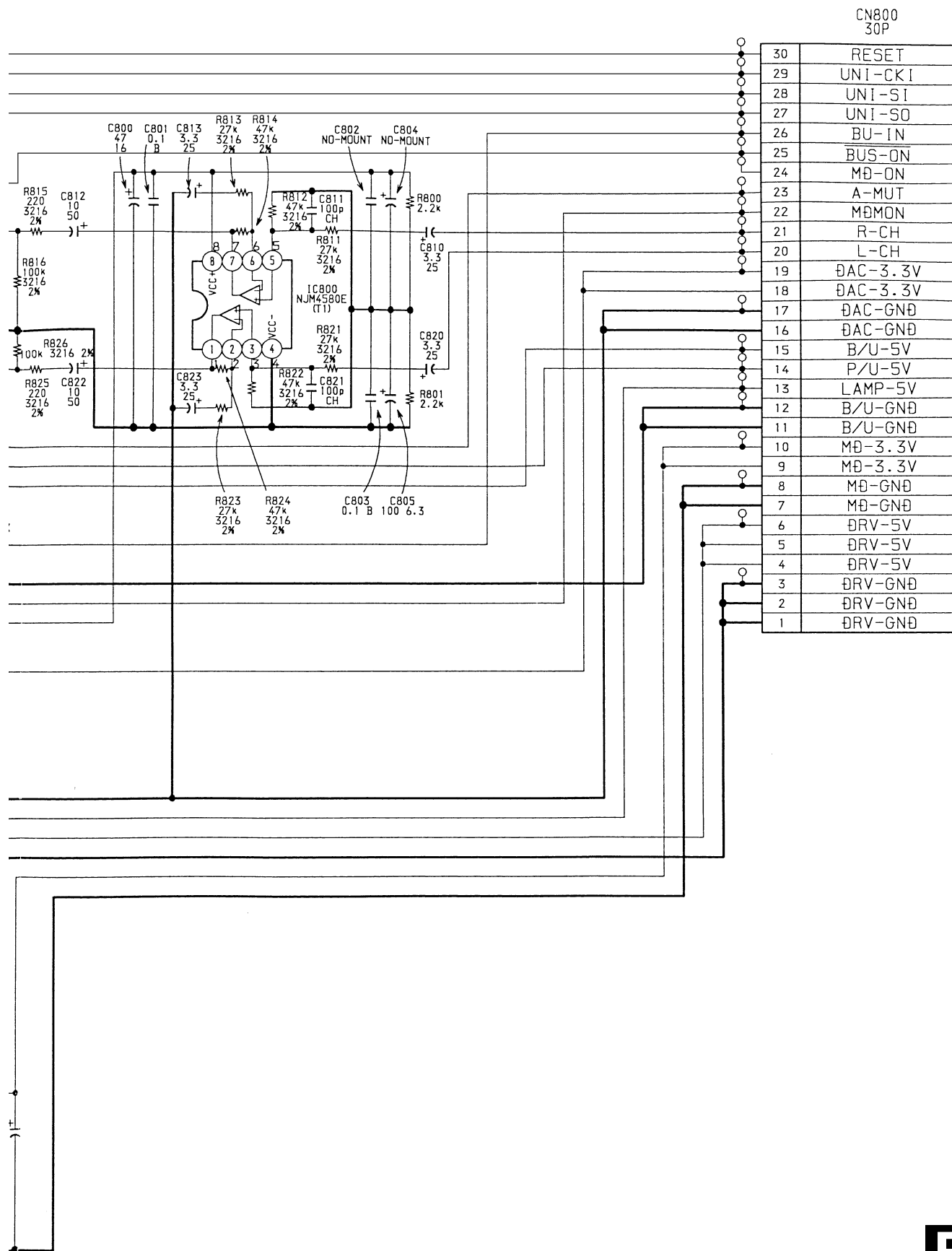


3.4 POWER PCB ASSY

POWER PCB ASSY

E
CN2





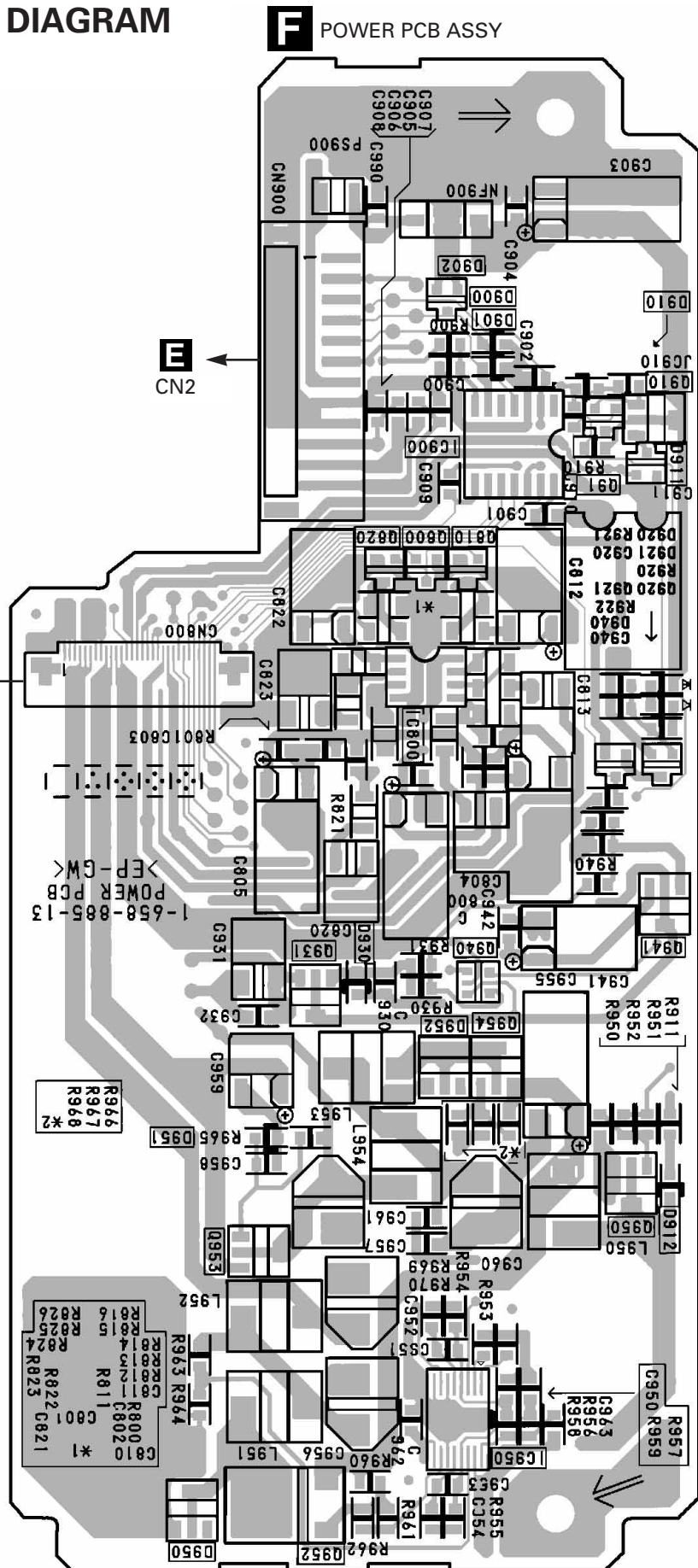
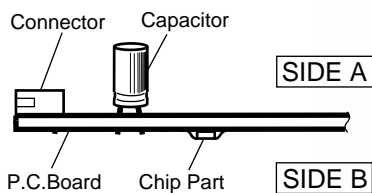
E
CN6

4. PCB CONNECTION DIAGRAM

4.1 POWER PCB ASSY

NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



SIDE A

IC,Q

Q910
IC900
Q911

Q820
Q800
Q810

IC800
Q921
Q920

Q941
Q940
Q931

Q954
Q950
Q953

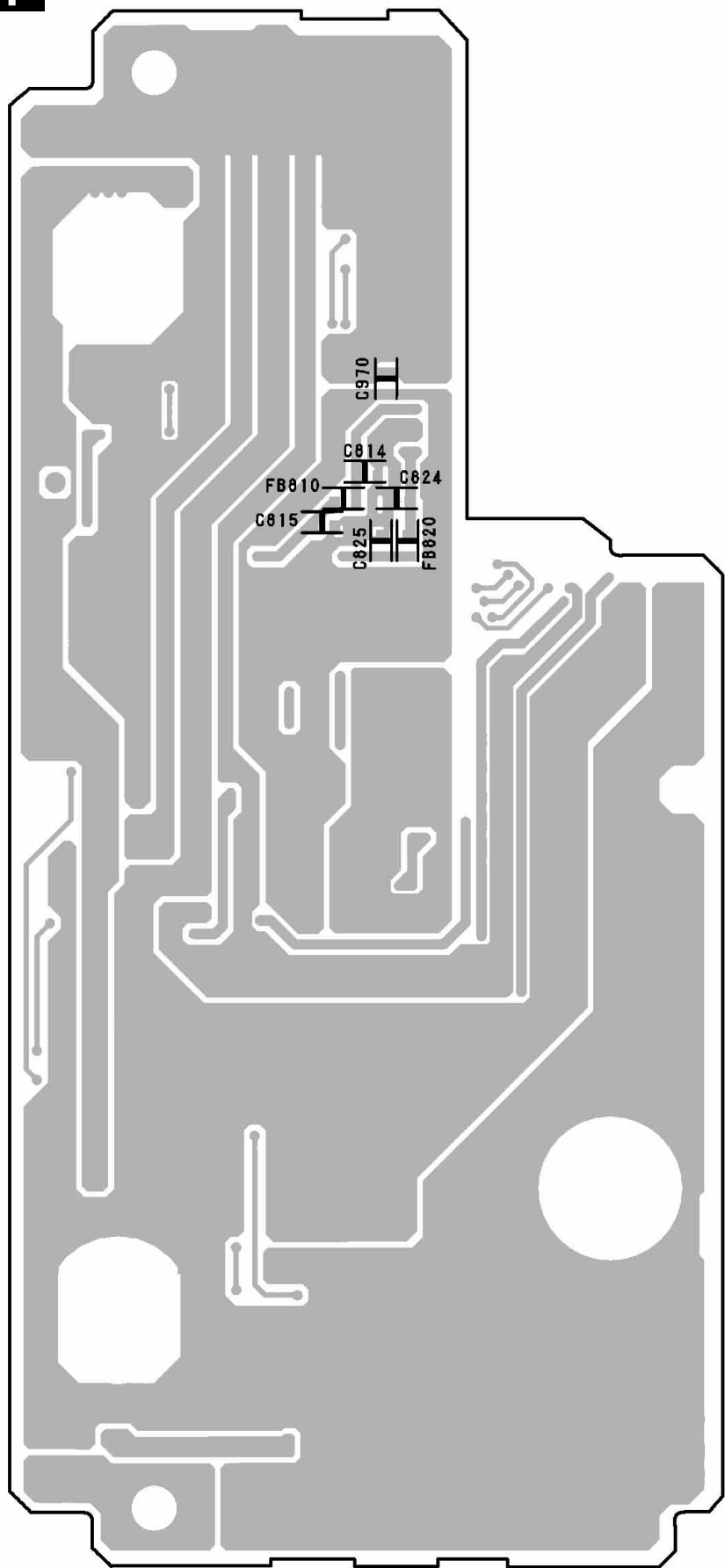
Q950
Q953

IC950

Q952

F POWER PCB ASSY

SIDE B



F

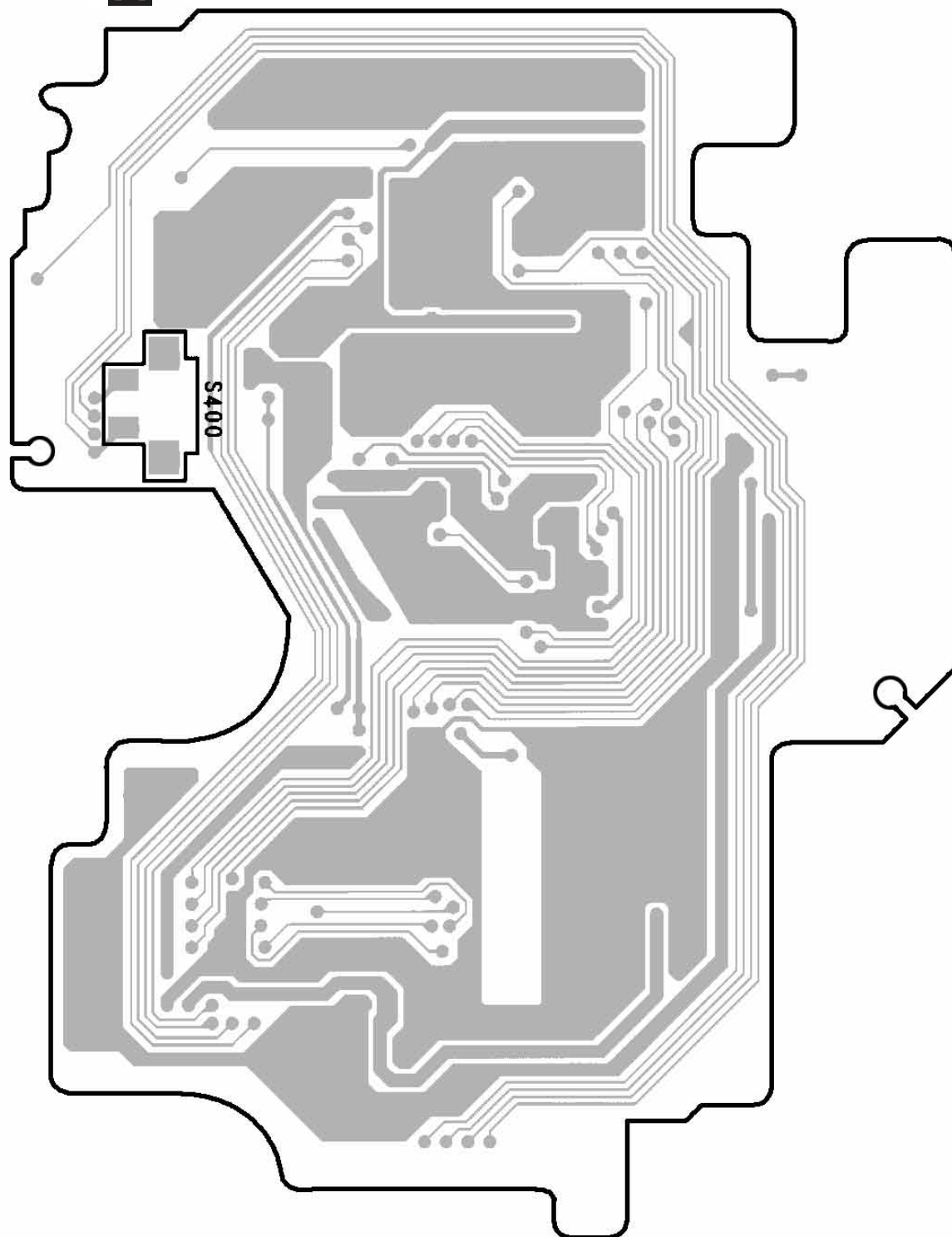
SIDE A

A



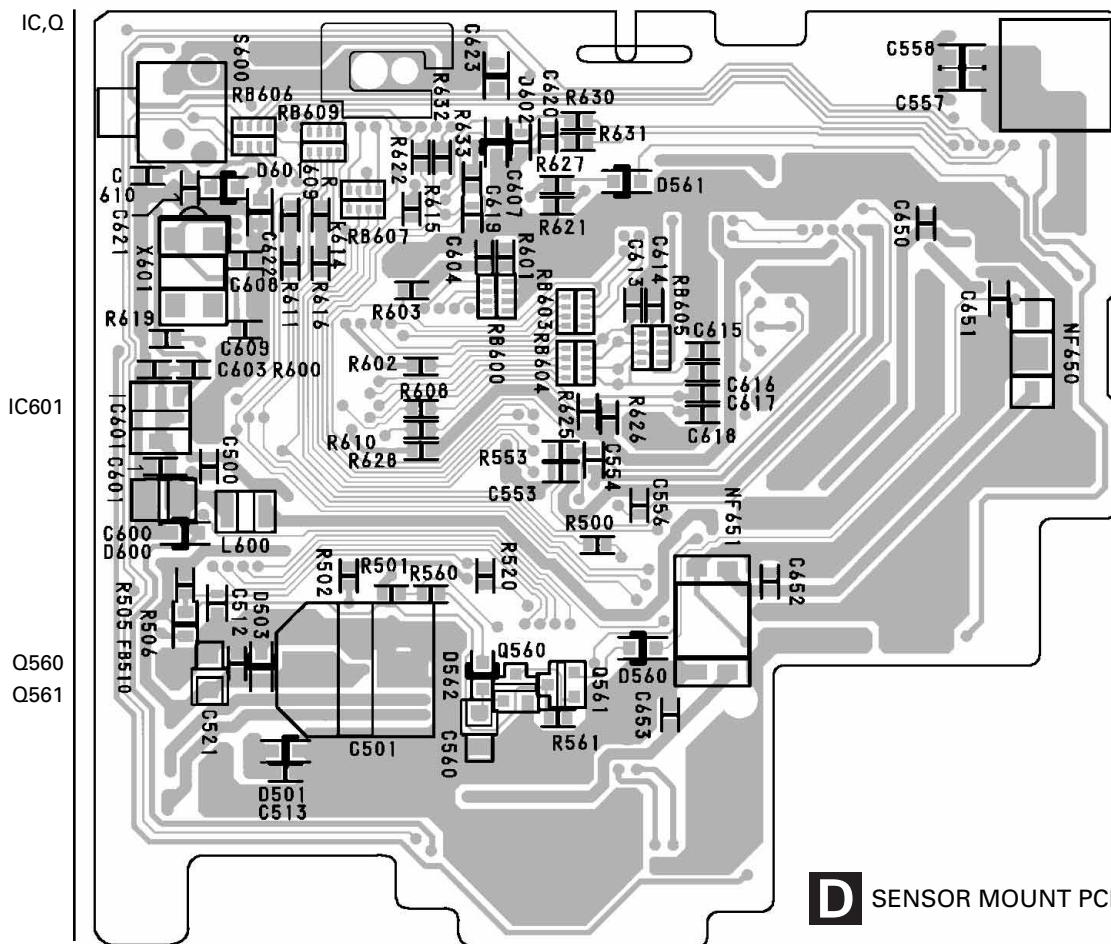
SIDE B

A SERVO PCB ASSY

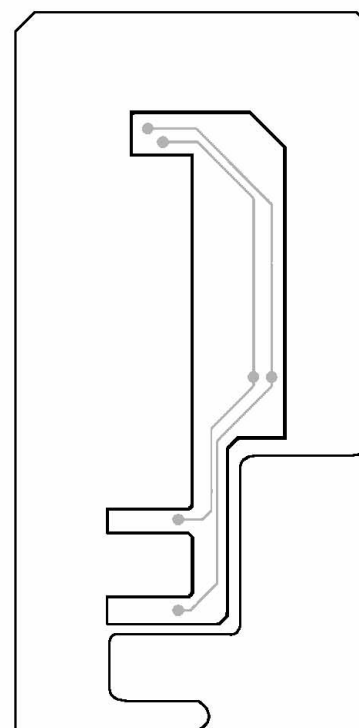


SIDE B

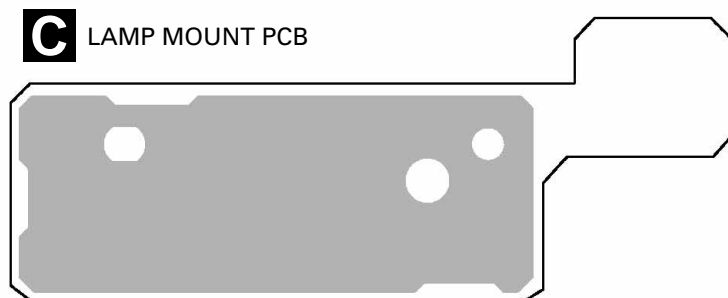
B MAIN PCB



D SENSOR MOUNT PCB



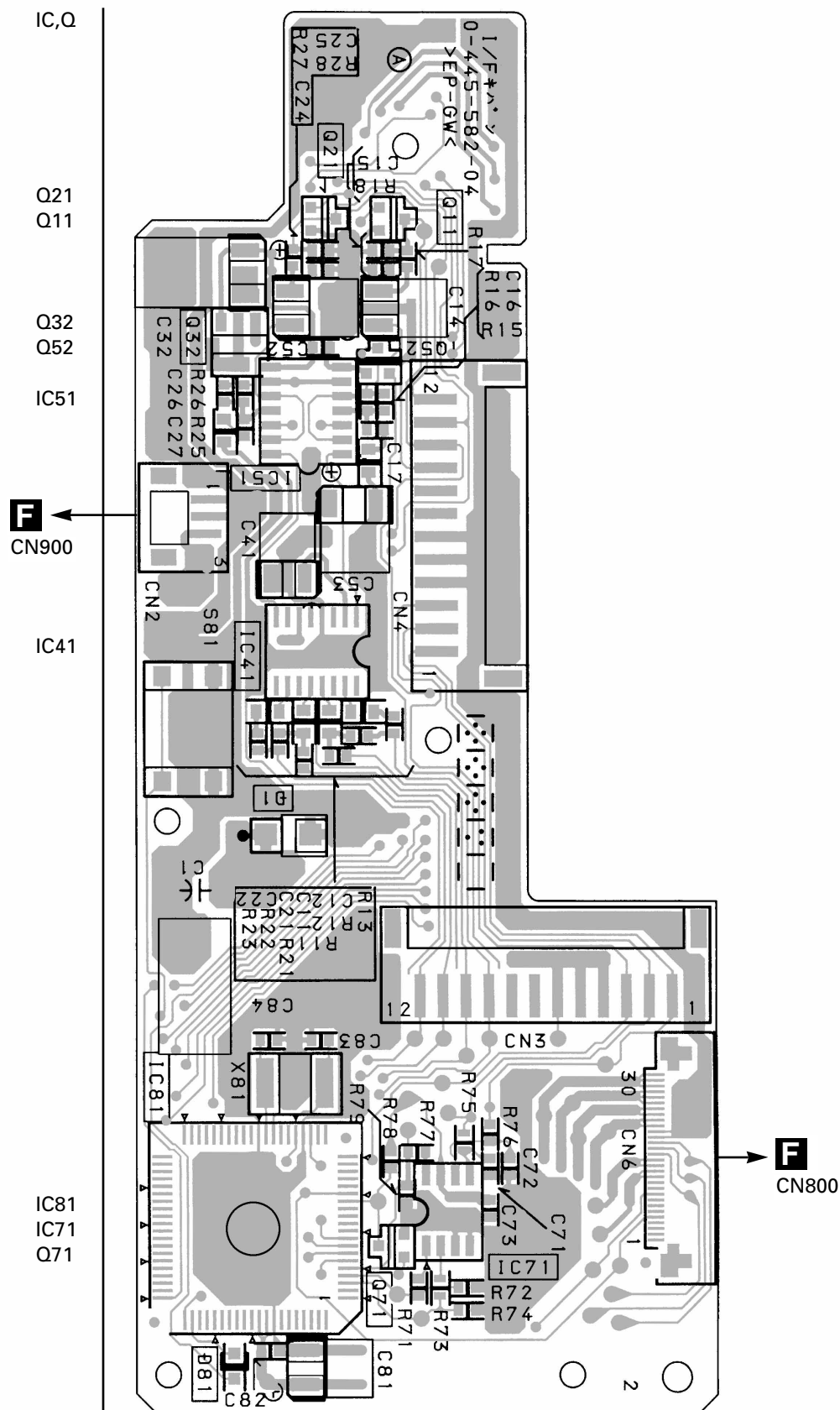
C LAMP MOUNT PCB



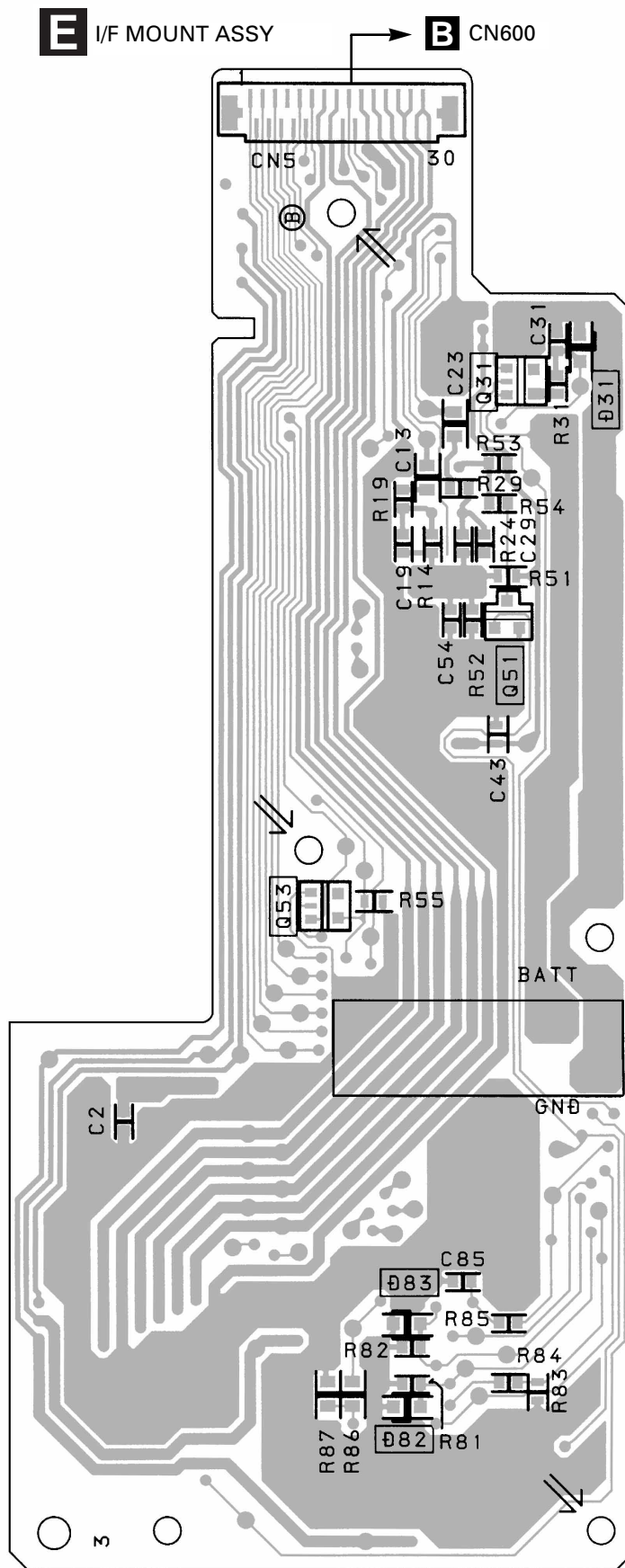
4.4 I/F MOUNT ASSY

SIDE A

E I/F MOUNT ASSY



SIDE B



5. ELECTRICAL PARTS LIST

NOTES:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○○J, RS1/○○S○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

=Circuit Symbol and No.=Part Name					=Circuit Symbol and No.=Part Name				
Part No. (PIONEER)					Part No. (PIONEER)				
Part No. (SONY)					Part No. (SONY)				
E Unit Number : Unit Name : I/F Mount Assy					R 72	RS1/16S104J	121684591		
MISCELLANEOUS					R 73	RS1/16S101J	121680991		
IC 41 IC	TA2050F	875926237			R 74	RS1/16S104J	121684591		
IC 51 IC	BA3129F	875935295			R 75	RS1/16S101J	121680991		
IC 71 IC	HA1287FP	875944209			R 76	RS1/16S101J	121680991		
IC 81 IC	PD5403B	875953715							
Q 11 Transistor	DTC314TK	872992022			R 77	RS1/16S101J	121680991		
Q 21 Transistor	DTC314TK	872992022			R 78	RS1/16S473J	121684191		
Q 31 Transistor	XN1A312-TX	872902067			R 79	RS1/16S104J	121684591		
Q 32 Transistor	2SD1664	872992087			R 81	RS1/16S473J	121684191		
Q 51 Transistor	DTC124EK	872902752			R 82	RS1/16S473J	121684191		
Q 52 Transistor	DTA144TKA	872902739							
Q 53 Transistor	FMC4A	872903630			R 83	RS1/16S473J	121684191		
Q 71 Transistor	2SC2412K	872992075			R 84	RS1/16S102J	121682191		
D 1 Diode	1SR154-400	871905318			R 85	RS1/16S222J	121682591		
D 31 Diode	MA8075(M)	871942277			R 86	RS1/10S223J	121608191		
D 81 Diode	1SS355	871998861			R 87	RS1/10S223J	121608191		
X 81 Radiator 6.29MHz	CZS3048	176735221			CAPACITORS				
S 81 Keyboard Switch	CZS3046	157248461			C 1	CZC5144	112693491		
CN 2 Connector	CZK3059	158005621			C 2	CZC5142	110782691		
CN 3 Connector	CZK3058	176458521			C 11	CZC5146	110998291		
CN 4 Connector	CZK3058	176458521			C 12	CZC5146	110998291		
CN 5 Connector	CZK3064	175036121			C 13	CZC5143	110998291		
CN 6 Connector	CZK3057	157393921			C 14	CZC5148	111044621		
RESISTORS					C 15	CCSRCH361J50	116439191		
R 11	RS1/16S181J	121681291			C 17	CZC5146	110998291		
R 12	RS1/16S223J	121683791			C 19	CZC5167	116439091		
R 13	RS1/16S102J	121682191			C 21	CZC5146	110998291		
R 14	RS1/16S473J	121684191			C 22	CZC5146	110998291		
R 15	RS1/16S473J	121684191			C 23	CZC5143	110998291		
R 16	RS1/16S473J	121684191			C 24	CZC5148	111044621		
R 17	RS1/16S821J	121682091			C 25	CCSRCH361J50	116439191		
R 18	RS1/16S104J	121684591			C 27	CZC5146	110998291		
R 19	RS1/16S123J	121683491			C 29	CZC5167	116439091		
R 21	RS1/16S181J	121681291			C 31	CZC5142	110782691		
R 22	RS1/16S223J	121683791			C 32	CZC5149	111045221		
R 23	RS1/16S102J	121682191			C 41	CZC5148	111044621		
R 24	RS1/16S473J	121684191			C 43	CZC5142	110782691		
R 25	RS1/16S473J	121684191			C 52	CZC5145	110782691		
R 26	RS1/16S473J	121684191			C 53	CZC5147	111044421		
R 27	RS1/16S821J	121682091			C 54	CZC5142	110782691		
R 28	RS1/16S104J	121684591			C 73	CZC5145	110782691		
R 29	RS1/16S123J	121683491			C 81	CZC5148	111044621		
R 31	RS1/16S222J	121682591			C 82	CZC5145	110782691		
R 51	RS1/16S222J	121682591			C 83	CZC5166	116292191		
R 52	RS1/16S222J	121682591			C 84	CZC5166	116292191		
R 53	RS1/16S104J	121684591			C 85	CZC5142	110782691		
R 54	RS1/16S473J	121684191			A Unit Number : CZW3054 Unit Name : Servo PCB Assy				
R 55	RS1/16S473J	121684191			MISCELLANEOUS				
R 71	RS1/16S101J	121680991			IC 100 IC	CXA1981AR	875207268		
					IC 200 IC	CXD2535CR-1	875238223		
					IC 201 IC	SC7S04F	875903184		
					IC 300 IC	MPC17A38VMEL	875917960		
					Q 100 Transistor	2SA1037K	872902648		

=Circuit Symbol and No.=Part Name			Part No. (PIONEER)	Part No. (SONY)
Q	200	Transistor	2SC2712	872923049
D	300	Diode	1SS355	871998862
D	301	Diode	1SS355	871998862
L	100	Inductor	CZT3086	141205821
L	200	Inductor	CZT3086	141205821
L	300	Micro-Inductor	CZT3085	141203941
L	301	Micro-Inductor	CZT3085	141203941
L	302	Micro-Inductor	CZT3085	141203941
L	303	Micro-Inductor	CZT3085	141203941
L	304	Micro-Inductor	CZT3085	141203941
S	400	Push Switch	CZS3041	169253221
RB	201	Chip Network Resistor	CZC5119	123357621
RB	202	Chip Network Resistor	CZC5119	123357621
RB	203	Chip Network Resistor	CZC5119	123357621
CN	100	Connector	CZK3048	157393121
CN	200	Connector	CZK3047	157337021
CN	301	Connector Pin 2P	CZK3045	158005521
CN	400	Connector	CZK3046	157334621

RESISTORS

R	100	RS1/16S473J	121684191
R	101	RS1/10S4R7J	121630891
R	102	RS1/16S151J	121681191
R	103	RS1/16S474J	121685391
R	104	RS1/16S472J	121682991
R	106	RS1/16S474J	121685391
R	107	RS1/16S222J	121682591
R	108	RS1/16S222J	121682591
R	109	RS1/16S222J	121682591
R	110	RS1/16S153J	121683591
R	111	RS1/16S473J	121684191
R	201	RS1/16S101J	121680991
R	202	RS1/16S101J	121680991
R	203	RS1/16S101J	121680991
R	207	RS1/16S103J	121683391
R	208	RS1/16S104J	121684591
R	209	RS1/16S105J	121685791
R	210	RS1/16S332J	121682791
R	211	RS1/16S112J	121827091
R	212	RS1/16S122J	121682291
R	221	RS1/16S474J	121685391
R	222	RS1/16S681J	121681991
R	223	RS1/16S102J	121682191
R	224	RS1/16S102J	121682191

CAPACITORS

C	102	CZC5123	113525991
C	103	CZC5123	113525991
C	104	CKSRYB102K50	116296491
C	105	CKSRYB682K25	116296991
C	106	CKSRYB223K25	116422711
C	107	CKSRYB103K25	116297011
C	108	CKSRYB103K25	116297011
C	111	CZC5120	110485211
C	113	CZC5122	110782691
C	114	CKSRYB103K25	116297011
C	115	CKSQYB105K10	110998291
C	117	CKSQYB105K10	110998291
C	118	CKSRYB472K50	116296891
C	119	CKSRYB682K25	116296991
C	120	CKSRYB473K16	116517691
C	123	CZC5122	110782691
C	200	CKSQYB105K10	110998291
C	202	CZC5123	113525991
C	204	CKSRYB103K25	116297011
C	205	CKSQYB474K16	110782391
C	206	CCSRCH101J50	116292791
C	207	CKSRYB272K50	116297991
C	208	CKSQYB393K25	116258791
C	209	CZC5122	110782691
C	210	CZC5122	110782691

=Circuit Symbol and No.=Part Name			Part No. (PIONEER)	Part No. (SONY)
C	211		CZC5122	110782691
C	301		CKSQYB105K10	110998291
C	302		CKSQYB105K10	110998291
C	303		CZC5121	110485291
C	304		CKSQYB105K10	110998291
C	305		CKSQYB105K10	110998291
C	306		CZC5122	110782691
C	307		CZC5122	110782691

B Unit Number : CZW3057
Unit Name : Main PCB

MISCELLANEOUS

IC	500	IC	CXD2536R	875237117
IC	501	IC	HM51W4400TT6-8	875934128
IC	550	IC	CS4330E-CSR	875936229
IC	600	IC	CXP84340-090Q	875289373
IC	601	IC	XC61AN4002PR	875936381
IC	602	IC	TC74HCT7007AF(EL)	875923847
IC	700	IC	LB1638M	875982387
IC	701	IC	LB1638M	875982387
Q	500	Transistor	XN1A312-TX	872902067
Q	501	Transistor	DTC314TK	872992021
Q	560	Transistor	UN2212	872942459
Q	561	Transistor	UN2211	872942122
Q	600	Transistor	DTB113ZK	872990460
Q	601	Transistor	UN2211	872942122
D	502	Diode	MA8036(L)	871942136
D	560	Diode	1SS355	871998862
D	561	Diode	1SS355	871998862
D	562	Diode	1SS355	871998862
D	600	Diode	MA8062(M)	871942264
L	500	Inductor	CZT3088	141205821
L	501	Inductor	CZT3087	141099821
L	502	Inductor	CZT3088	141205821
L	600	Inductor	CZT3090	141205821
TH	600	Thermistor	CZC5125	181042121
X	500	Crystal Oscillator 45MHz	CZS3043	176016821
X	600	Ceramic Oscillator 10MHz	CZS5124	176036521
X	601	Crystal Oscillator 32.768kHz	CZS3044	157988621
S	600	Keyboard Switch	CZS3045	157191421
FB	510	Inductor	CZT3091	141423521
FB	650	Ferrite Chip	CZT3089	150023521
FB	651	Ferrite Chip	CZT3089	150023521
NF	650	EMI Filter	CZC5137	123946621
NF	651	EMI Filter	CZC5138	123958121
RB	600	Resistor	CZC5136	123381021
RB	601	Resistor	CZC5165	123381021
RB	602	Resistor	CZC5127	123357621
RB	603	Resistor	CZC5135	123341221
RB	604	Resistor	CZC5135	123341221
RB	605	Resistor	CZC5136	123381021
RB	606	Resistor	CZC5135	123341221
RB	607	Resistor	CZC5135	123341221
RB	609	Resistor	CZC5135	123341221
CN	500	Connector	CZK3050	157337021
CN	600	Connector	CZK3052	157393921
CN	601	Connector	CZK3051	157391621
CN	602	Connector Pin	CZK3053	158005521
CN	603	Connector Pin	CZK3053	158005521
CN	604	Connector Pin	CZK3056	158005621
CN	700	Connector Pin	CZK3055	158005561
CN	701	Connector Pin	CZK3054	158005541

RESISTORS

R	500	RS1/16S102J	121682191
R	501	RS1/16S331J	121681591
R	502	RS1/16S332J	121682791
R	503	RS1/16S101J	121680991
R	504	RS1/16S101J	121680991

=Circuit Symbol and No.=Part Name		Part No. (PIONEER)	Part No. (SONY)	=Circuit Symbol and No.=Part Name		Part No. (PIONEER)	Part No. (SONY)	
R	505	CZC5134	121873391	C	609	CCSRCH150J50	116291791	
R	506	CZC5133	121873091	C	610	CZC5139	110782691	
R	520	RS1/16S151J	121681191	C	611	CKSRYP224Z16	116512891	
R	550	RS1/16S100J	121679791	C	620	CZC5139	110782691	
R	551	RS1/16S101J	121680991	C	621	CZC5139	110782691	
R	552	RS1/16S101J	121680991	C	650	CKSRYP224Z16	116512891	
R	553	RS1/16S222J	121682591	C	651	CKSRYP224Z16	116512891	
R	560	CZC5131	121369291	C	652	CKSRYP224Z16	116512891	
R	561	CZC5132	121871691	C	653	CKSRYP224Z16	116512891	
R	600	RS1/16S473J	121684191	C	700	CZC5129	110782691	
R	601	RS1/16S104J	121684591	C	701	CZC5129	110782691	
R	602	RS1/16S104J	121684591	<div>F</div> <div>Unit Number : CZW3061 Unit Name : Power PCB Assy</div>				
R	603	RS1/16S104J	121684591					
R	605	RS1/16S104J	121684591					
R	607	CZC5126	121870891					
					MISCELLANEOUS			
R	608	RS1/16S102J	121682191	IC	800	IC	NJM4580E	875971182
R	609	RS1/16S222J	121682591	IC	900	IC	MM1284XFFE	875928487
R	610	RS1/16S102J	121682191	IC	950	IC	TL1451ACDB-E20	875937013
R	611	RS1/16S222J	121682591	Q	800	Transistor	UN2112	872942412
R	612	RS1/16S104J	121684591	Q	810	Transistor	DTC314TK	872992021
R	613	RS1/16S102J	121682191	Q	820	Transistor	DTC314TK	872992021
R	614	RS1/16S222J	121682591	Q	910	Transistor	2SD1664	872992085
R	615	RS1/16S102J	121682191	Q	911	Transistor	2SD601A	872942227
R	616	RS1/16S222J	121682591	Q	920	Transistor	2SD601A	872942227
R	617	RS1/16S104J	121684591	Q	921	Transistor	UN2112	872942412
R	618	RS1/16S104J	121684591	Q	931	Transistor	2SD1664	872992085
R	619	RS1/16S103J	121683391	Q	940	Transistor	XN1A312-TX	872902067
R	622	RS1/16S101J	121680991	Q	941	Transistor	2SD1664	872992085
R	624	RS1/16S102J	121682191	Q	950	Transistor	2SB1115A-YQ	872910660
R	625	RS1/16S104J	121684591	Q	952	Transistor	2SB1202FAST	872982284
R	626	RS1/16S104J	121684591	Q	953	Transistor	2SD1664	872992085
R	627	RS1/16S102J	121682191	Q	954	Transistor	2SB1115A-YQ	872910660
R	628	RS1/16S104J	121684591	D	900	Diode	MA8062(M)	871942264
R	629	RS1/16S104J	121684591	D	901	Diode	MA8062(M)	871942264
R	630	RS1/16S473J	121684191	D	902	Diode	RB411D	871997540
R	631	RS1/16S102J	121682191	D	910	Diode	MA8068(M)	871901765
R	632	RS1/16S102J	121682191	D	911	Diode	MA152WA	871940020
R	633	RS1/16S102J	121682191	D	912	Diode	1SS355	871998862
				D	920	Diode	MA8062(M)	871942264
				D	921	Diode	1SS355	871998862
CAPACITORS				D	930	Diode	MA8039(L)	871942216
C	500	CKSRYP224Z16	116512891	D	940	Diode	MA8091(M)	871942297
C	501	CZC5140	112836121	D	950	Diode	RB110C	871997533
C	502	CCSRCH5R0C50	116291091	D	951	Diode	MA8039(L)	871942216
C	503	CKSRYP103K25	116297091	D	952	Diode	RB110C	871997533
C	504	CCSRCH5R0C50	116291091	L	950	Coil	CZT3093	140964021
C	505	CKSRYP224Z16	116512891	L	951	Coil	CZT3092	140358421
C	506	CZC5130	113525991	L	952	Coil	CZT3093	140964021
C	507	CZC5129	110782691	L	953	Coil	CZT3092	140358421
C	508	CZC5129	110782691	L	954	Coil	CZT3093	140964021
C	509	CKSRYP224Z16	116512891	FB	810	Inductor	CZT3094	141459321
C	510	CZC5129	110782691	FB	820	Inductor	CZT3094	141459321
C	511	CCSRCH101J50	116292791	NF	900	EMI Filter	CZC5150	123946621
C	512	CKSRYP224Z16	116512891	PS	900	IC Link	CZE3029	153339721
C	513	CCSRCH101J50	116292791	CN	800	Connector	CZK3062	157393921
C	520	CCSRCH680J50	116292591	CN	900	Connector	CZK3061	176458521
C	521	CZC5141	113525991	RESISTORS				
C	550	CZC5128	110485291	R	800		RS1/10S222J	121605791
C	551	CZC5129	110782691	R	801		RS1/10S222J	121605791
C	553	CCSRSL102J50	116435791	R	811		CZC5160	120856141
C	554	CKSRYP224Z16	116512891	R	812		CZC5161	121623800
C	557	CKSQYB104K16	116400411	R	813		CZC5160	120856141
C	560	CZC5141	113525991	R	814		CZC5161	121623800
C	600	CZC5164	110485291	R	815		CZC5159	121618200
C	601	CKSRYP224Z16	116512891	R	816		CZC5162	121624600
C	602	CKSQYB224K16	116448991	R	821		CZC5160	120856141
C	603	CZC5139	110782691	R	822		CZC5161	121623800
C	604	CZC5139	110782691					
C	605	CZC5129	110782691					
C	607	CCSRCH101J50	116292791					
C	608	CCSRCH150J50	116291791					

=Circuit Symbol and No.=Part Name		Part No. (PIONEER)	Part No. (SONY)	=Circuit Symbol and No.=Part Name		Part No. (PIONEER)	Part No. (SONY)		
R	823	CZC5160	120856141	C	904	CZC5158	116450591		
R	824	CZC5161	121623800	C	909	CKSQYB104K16	116400411		
R	825	CZC5159	121618200	C	910	CKSQYB104K16	116400411		
R	826	CZC5162	121624600	C	911	CZC5163	112571022		
R	900	RS1/10S473J	121608991	C	920	CKSQYF105Z16	116434691		
R	910	RS1/10S223J	121608191	C	931	CZC5151	111044621		
R	911	RS1/10S102J	121604691	C	932	CKSQYB104K16	116400411		
R	920	RS1/10S473J	121608991	C	940	CKSQYB104K16	116400411		
R	921	RS1/10S333J	121608591	C	941	CZC5156	111047421		
R	922	RS1/10S104J	121609791	C	942	CKSQYB104K16	116400411		
R	930	RS1/10S222J	121605791	C	950	CCSQCH221J50	116312500		
R	931	RS1/10S222J	121605791	C	951	CCSQCH102J50	116327591		
R	940	RS1/10S102J	121604691	C	952	CCSQCH331J50	116326391		
R	950	RS1/10S103J	121607391	C	953	CCSQCH102J50	116327591		
R	951	RS1/10S472J	121606591	C	954	CCSQCH331J50	116326391		
R	952	RS1/10S472J	121606591	C	955	CZC5154	111045621		
R	953	RS1/10S562J	121606791	C	956	CZC5157	112859021		
R	954	RS1/10S153J	121607791	C	957	CZC5157	112859021		
R	955	RS1/10S153J	121607791	C	959	CZC5152	111044721		
R	956	RS1/10S333J	121608591	C	960	CZC5157	112859021		
R	957	RS1/10S333J	121608591	C	961	CZC5157	112859021		
R	958	RS1/10S333J	121608591	C	962	CKSQYB104K16	116400411		
R	959	RS1/10S333J	121608591	C	963	CKSQYB104K16	116400411		
R	960	RS1/10S101J	121602591	C	970	CCSQCH102J50	116327591		
R	961	RS1/10S681J	121604591	C	989	CKSQYB104K16	116400411		
R	962	RS1/10S681J	121604591	<div>C</div> <div>Unit Number : Unit Name : Lamp Mount PCB</div>					
R	963	RN1/10SE1002D	120880611						
R	964	RN1/10SE3301D	121666391						
R	965	RS1/10S101J	121602591						
R	966	RS1/10S101J	121602591	MISCELLANEOUS					
R	967	RS1/10S681J	121604591	S	620	Push Switch	CZS3047	169253221	
R	968	RS1/10S681J	121604591	PL	620	Pilot Lamp	CZE3030	151749211	
R	969	RN1/10SE1002D	120880611	CN	620	Connector Pin	CZK3063	158005621	
R	970	RN1/10SE3301D	121666391	RESISTORS					
CAPACITORS				R	620		RS1/10S2R2J	121629891	
<div>C</div>	415	CCSQCH221J50	116312500	<div>D</div> <div>Unit Number : Unit Name : Sensor Mount PCB</div>	S	611	Push Switch	CZS3042	157246711
	800	CZC5154	111045621		S	612	Push Switch	CZS3042	157246711
	801	CKSQYB104K16	116400411		S	613	Push Switch	CZS3042	157246711
	803	CKSQYB104K16	116400411		S	614	Push Switch	CZS3042	157246711
	805	CZC5153	111045021		S	615	Push Switch	CZS3042	157246711
C	810	CZC5155	111045621	S	616	Push Switch	CZS3042	157246711	
C	811	CCSQCH101J50	116325191	CN	610	Connector	CZK3049	157391621	
C	812	CZC5156	111047421	Miscellaneous Parts List					
C	813	CZC5155	111045621						
C	814	CCSQCH221J50	116312500						
C	820	CZC5155	111045621						
C	821	CCSQCH101J50	116325191						
C	822	CZC5156	111047421						
C	823	CZC5155	111045621						
C	824	CCSQCH221J50	116312500						
C	825	CCSQCH221J50	116312500						
C	900	CKSQYB472K50	116301791						
C	901	CKSQYB104K16	116400411						
C	902	CCSQCH102J50	116327591						
C	903	CZC5154	111045621						
				SL Motor Assy					
				SP Motor					
				Slide Variable resistor					
				Switch					
				Switch					
				Switch					
				Mini Disc Device					
				LD Motor Assy					
				ELV Motor Assy					

6. ADJUSTMENT

There is no information to be shown in this chapter.

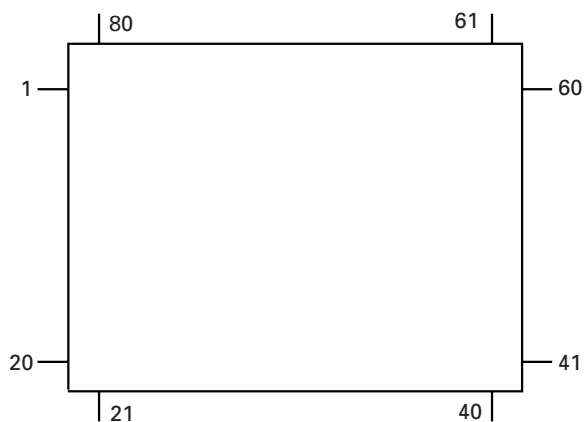
7. GENERAL INFORMATION

7.1 IC

● Pin Functions(PD5403B)

Pin No.	Pin Name	I/O	Function and Operation
1	NC		OPEN
2	SYSRST	O	System reset output for MD(Not used)
3	CSI	I	IP-BUS data input
4	CSO	O	IP-BUS data output
5	APPW	O	IP-BUS driver power supply control
6	BUSON	O	Unilink BUS ON control output
7	UNICLK	O	Unilink SCK output
8	UNISO	O	Unilink DATA output
9	UNISI	I	Unilink DATA input
10-13	NC		OPEN
14	ASENS	I	Acc sense input
15	BSSENS	I	Back Up sense input
16-22	NC		OPEN
23	UNISINT	I	Unilink DATA interrupt input
24	GND	I	GND
25	RESET	I	Reset input
26, 27	NC		OPEN
28	XIN	I	Crystal oscillator connection pin
29	XOUT	O	Crystal oscillator connection pin
30	VSS		GND
31-59	NC		OPEN
60	SYSPW	O	Power supply control output of analog SW
61	SELECT	O	IP-BUS audio line select control output
62	SYSMUTE	O	System mute output
63-70	NC		OPEN
71	VCC		VDD(Back Up +5V)
72	VREF	I	Reference voltage input for A/D
73	AVSS	I	GND for A/D
74-80	NC		OPEN

*PD5403B



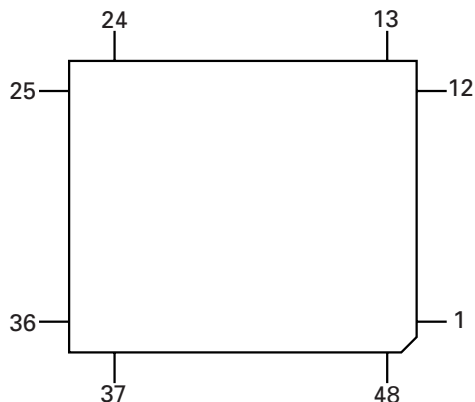
IC's marked by* are MOS type.

Be careful in handling them because they are very liable to be damaged by electrostatic induction.

● Pin Functions(CXA1981AR)

Pin No.	Pin Name	I/O	Function and Operation
1	VC	O	Output terminal for the center point voltage (1/2 VCC) generated
2-7	A-F	I	Signal input from detector circuit in the optical pick-up block
8	FI	I	Signal input of the operational amplifier for F signal
9	FO	O	Signal output of the operational amplifier for F signal
10	PD	I	Front monitor Connected to the photo diode
11	APCREF	I	Input terminal for the setting of laser power
12	TEMPI	I	Terminal for the connection to temperature sensor Not used this set (OPEN)
13	GND		Ground terminal
14	AAPC	O	LD amplifier output terminal of APC circuit
15	DAPC	O	Not used (OPEN)
16	TEMPR	O	Output terminal of the reference voltage for temperature sensor Not used this set (OPEN)
17	$\overline{\text{XRST}}$	I	Reset signal input from the system controller (IC600) When reset : "L"
18	SWDT	I	Write data signal input from the system controller (IC600)
19	SCLK	I	Clock signal input from the system controller (IC600)
20	XLAT	I	Latch signal input from the system controller (IC600)
21	VREF	O	Reference voltage output Not used this set (OPEN)
22	TENV	O	Not used (OPEN)
23	THLD	I	Not used (OPEN)
24	VCC		Power supply terminal (+3.3V)
25	TFIL	I	Not used (OPEN)
26	TE	O	Tracking error signal output to CXD2535CR (IC200)
27	TLB	I	Input terminal of the adder signal to tracking error Not used this set (OPEN)
28	CSLED	I	Terminal for the sled error lowpass filter
29	SE	O	Sled error signal output to CXD2535CR (IC200)
30	ADFM	O	FM signal output terminal of the ADIP
31	ADIN	I	Input terminal by AC coupling is FM signal of the ADIP
32	ADAGC	I	External capacitor connect terminal for AGC of the ADIP
33	ADFG	O	ADIP double turned FM signal output to CXD2535CR (IC200) (22.05kHz \pm 1kHz)
34	AUX	O	Sub signal output to CXD2535CR (IC200)
35	FE	O	Focus error signal output to CXD2535CR (IC200)
36	FLB	I	Input terminal of the adder signal to focus error Not used this set (OPEN)
37	ABCD	O	Light amount signal output to CXD2535CR (IC200)
38	BOTM	O	Light amount bottom hold signal output to CXD2535CR (IC200)
39	PEAK	O	Light amount peak hold signal output to CXD2535CR (IC200)
40	PFAGC	I	External capacitor connect terminal of AGC circuit for the RF
41	RF	O	Playback EFM RF signal output to CXD2535CR (IC200)
42	ISET	I	Setting terminal for the internal circuit constant 22kHz,BPF center frequency
43	AGCI	I	Input terminal by AC coupling is RF signal
44	RFO	O	RF signal output terminal
45	MORFI	I	Input terminal by AC coupling is RF signal of the MO
46	MORFO	O	RF signal output terminal of the MO
47,48	I,J	I	Signal input from detector circuit in the optical pick-up block

CXA1981AR



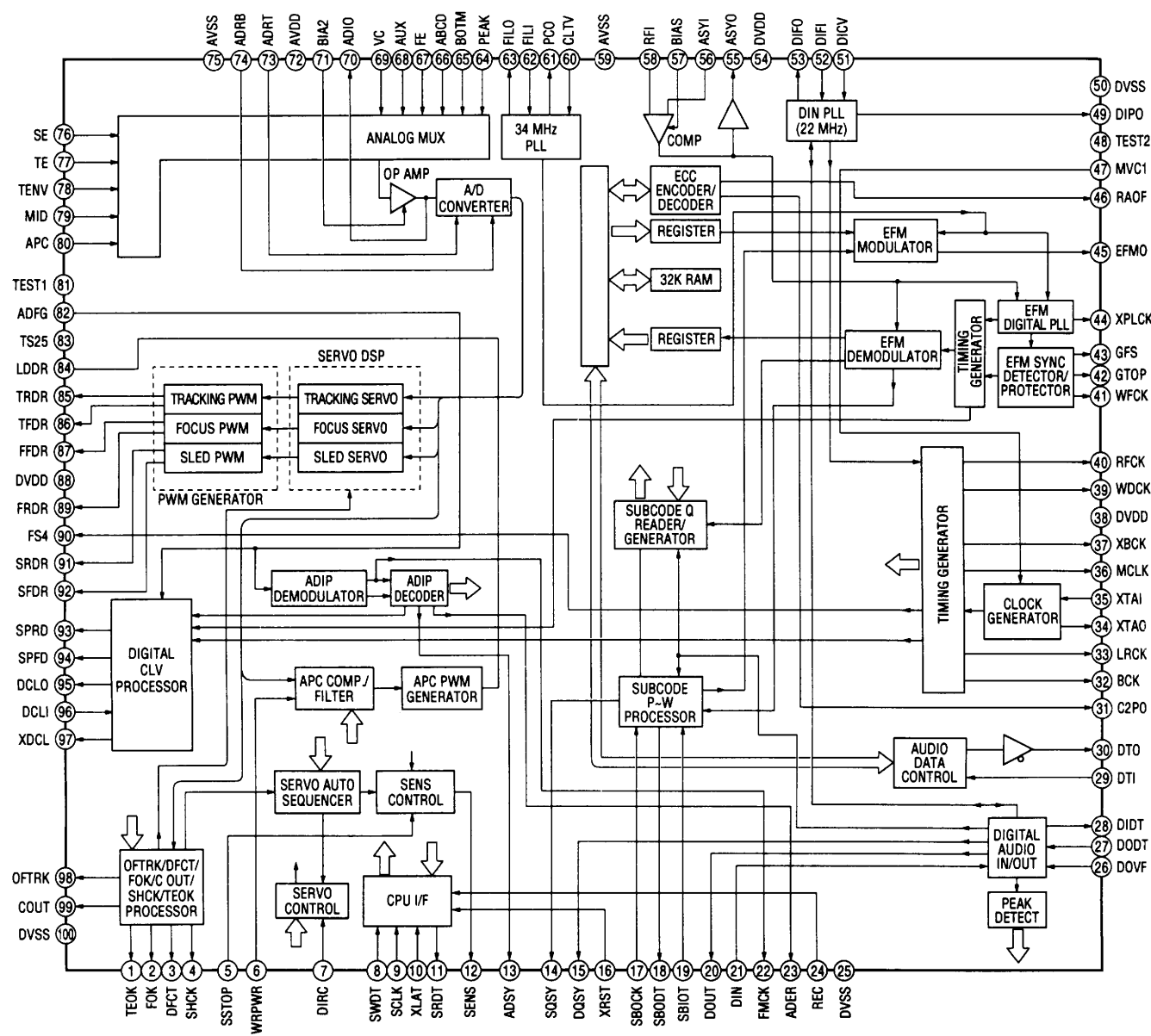
● Pin Functions(CXD2535CR-1)

Pin No.	Pin Name	I/O	Function and Operation
1	FS256	O	11.2896MHz clock signal output (MCLK system) Not used this set (OPEN)
2	FOK	O	Focus OK signal output to the system controller (IC600) "H" is output when the focus is applied
3	DFCT	O	Defect ON/OFF selection signal output to CXD2536CR (IC500)
4	SHCK	O	Track jump detection signal output to the system controller Not used this set (OPEN)
5	SHCKEN	I	Track jump detection enable input Not used this set (Fixed at "L")
6	WRPWR	I	Laser power selection signal input from the system controller Not used this set (Fixed at "L")
7	DIRC	I	Not used this set (Fixed at "H")
8	SWDT	I	Write data signal input from the system controller (IC600)
9	SCLK	I	Serial clock signal input from the system controller (IC600)
10	XLAT	I	Serial latch signal input from the system controller (IC600)
11	SRDT	O	Read data signal output to the system controller (IC600)
12	SENS	O	Internal status (SENS) output to the system controller (IC600)
13	ADSY	O	ADIP sync signal output Not used this set (OPEN)
14	SQSY	O	Sub-code Q sync (SCOR) output to the system controller (IC600) "L" every 13.3msec, Almost "H"
15	DQSY	O	Digital in U-bit CD format sub-code Q sync (SCOR) output to the system controller (IC600) "L" every 13.3msec, Almost "H"
16	XRST	I	Reset signal input from the system controller (IC600) When reset "L"
17	TEST4	I	Test input terminal (Fixed at "L")
18	CLVSK	O	Not used this set (OPEN)
19	TEST5	I	Test input terminal (Fixed at "L")
20	DOUT	O	Output terminal of the digital audio signal (for optical out) Not used this set (OPEN)
21	DIN	I	Input terminal of the digital audio signal (for optical out) Not used this set (Fixed at "L")
22	FMCK	O	FM modulation clock signal output of the ADIP Not used this set (OPEN)
23	ATER	O	ADIP CRC flag output When error "H" Not used this set (OPEN)
24	REC	I	Record/playback selection signal input When recording : "H", when playback: "L" (Fixed at "L")
25	DVSS		Ground terminal (Digital system)
26	DOVF	I	Validity flag input terminal for the digital audio out Not used this set (Fixed at "L")
27	DODT	I	Input terminal of 16-bit data signal for the digital audio out Not used this set (Fixed at "L")
28	DIDT	O	Output terminal of 16-bit data signal for the digital audio in Not used this set (OPEN)
29	DTI	I	Record audio data signal input from CXD2536CR (IC500)
30	DTO	O	Playback audio data signal output to CXD2536CR (IC500)
31	C2PO	O	C2PO (indicate the error state of the data) signal output to CXD2536AR (IC500) Playback: C2PO ("H"), Digital recording: D.In-Vflag, Analog recording: "L"
32	BCK	O	Bit clock (2.8224MHz) signal output to CXD2536CR (IC500) (MCLK system)
33	LRCK	O	L/R clock (44.1kHz) signal output to CXD2536CR (IC500) (MCLK system)
34	XTAO	O	System clock (512Fs=22.5792MHz) signal output Not used this set (OPEN)
35	XTAI	I	System clock (512Fs=22.5792MHz) signal input from CXD2536CR (IC500)
36	MCLK	O	MCLK clock (22.5792MHz) signal output Not used this set (OPEN)
37	XBCK	O	BCK (pin 32) inverted output Not used this set (OPEN)
38	DVDDO		Power supply terminal (+3.3V) (Digital system)
39	WDCK	O	WDCK clock (88.2kHz) signal output (MCLK system) Not used this set (OPEN)
40	RFCK	O	RFCK clock (7.35kHz) signal output (MCLK system) Not used this set (OPEN)
41	WFCK	O	WFCK clock (7.35kHz) signal output (When playback: EFM decoder PLL system, When recoding: EFM encoder PLL system) Not used this set (OPEN)
42	GTOP	O	Opens the playback EFM frame sync protection window when "H" Not used set (OPEN)
43	GFS	O	The playback EFM frame sync and interpolation protection timing match when "H" Not used this set (OPEN)
44	XPLCK	O	EFM decoder PLL clock (98Fs=4.3218MHz) signal output Falling edge of the EFM PLL clock and the EFM signal match Not used this set (OPEN)

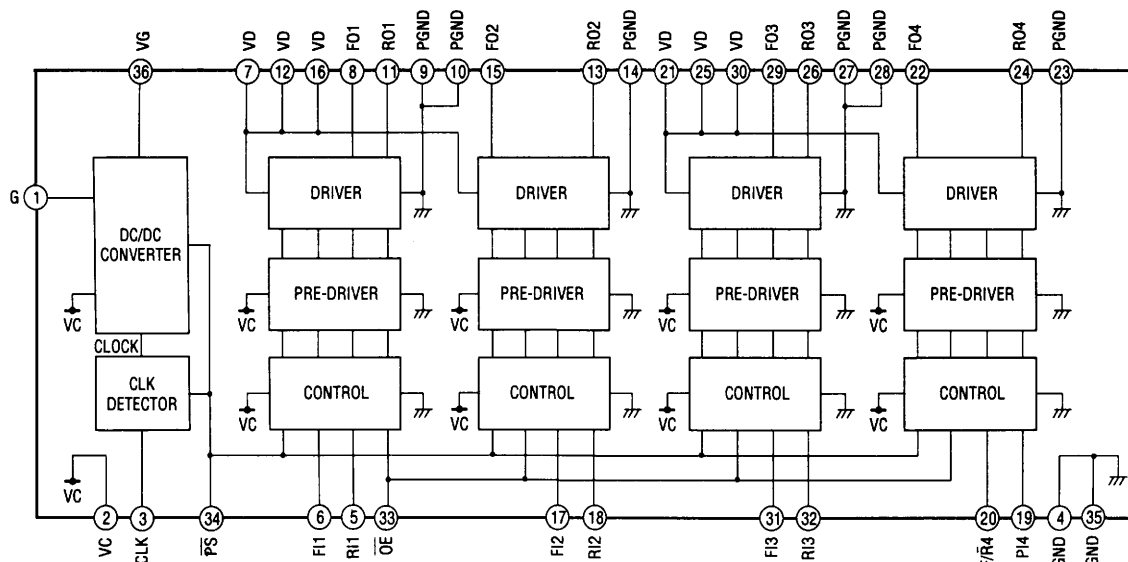
Pin No.	Pin Name	I/O	Function and Operation
45	EFMO	O	FM signal output (When recoding) Not used this set (OPEN)
46	RAOF	O	Overflow detection signal output of the internal RAM (Decoder monitor out) RAOF is signal generated when the 32k RAM exceeds the $\pm 4F$ jitter margin Not used this set (OPEN)
47	MVCI	I	Oscillation input for PLL of the digital in Not used this set (Fixed at "L")
48	TEST2	I	Test terminal input (Fixed at "L")
49	DIPD	O	Phase comparator output for PLL of the digital in When the internal VCO:Frequency;Low→"H" When the external VCO:Frequency;Low→"L" Not used this set (OPEN)
50	DVSS1		Ground terminal (Digital system)
51	DICV	I	Control voltage input terminal of the internal VCO for digital in PLL
52	DIFI	I	Filter input terminal of the internal VCO for digital in PLL Not used this set (Fixed at "L")
53	DIFO	O	Filter output terminal of the internal VCO for digital in PLL Not used this set (OPEN)
54	AVDD1		Power supply terminal (+3.3V) (Analog system)
55	ASYO	O	Playback EFM full-swing output (L=VSS,H=VDD)
56	ASYI	I	Playback EFM asymmetry compare voltage input terminal
57	BIAS	I	Playback EFM asymmetry circuit constant current input terminal
58	RFI	I	Playback EFM RF signal input from CXA1981AR (IC100)
59	AVSS1		Ground terminal (Analog system)
60	CLTV	I	VCO control voltage input terminal of the PLL for decoder PLL master clock
61	PCO	O	Phase comparator output terminal of the PLL for decoder PLL master clock
62	FILI	I	Filter input terminal of the PLL for decoder PLL master clock
63	FILO	O	Filter output terminal of the PLL for decoder PLL master clock
64	PEAK	I	Light amount peak hold signal input from CXA1981AR (IC100)
65	BOTM	I	Light amount bottom hold signal input from CXA1981AR (IC100)
66	ABCD	I	Light amount signal input from CXA1981AR (IC100)
67	FE	I	Focus error signal input from CXA1981AR (IC100)
68	AUX1	I	Sub signal input from CXA1981AR (IC100)
69	VC	I	Center point voltage (1/2 VCC) input from CXA1981AR (IC100)
70	ADIO	O	Monitor output of the A/D converter input signal Not used this set (OPEN)
71	TEST3	I	Test input terminal (Fixed at "L")
72	AVDD2		Power supply terminal (+3.3V) (Analog system)
73	ADRT	I	A/D converter action limits (upper side) voltage input (Fixed at "H")
74	ADRB	I	A/D converter action limits (lower side) voltage input (Fixed at "L")
75	AVSS2		Ground terminal (Analog system)
76	SE	I	Sled error signal input from CXA1981AR (IC100)
77	TE	I	Tracking error signal input from CXA1981AR (IC100)
78	AUX2	I	Sub signal input terminal from CXA1981AR (IC100)
79	DCHG	I	Connected to the Ground
80	APC	I	Input terminal for the laser APC Not used this set (Fixed at "L")
81	TEST1	I	Test input terminal (Fixed at "L")
82	ADFG	I	ADIP double turned FM signal input from CXA1981AR (IC100) (22.05kHz \pm 1kHz) (TTL schmitt input)
83	TS25	I	Test input terminal (Fixed at "L")
84	LDDR	O	Laser APC signal output to CXA1981AR (IC100)
85	TRDR	O	Tracking servo drive signal output (-)
86	TFDR	O	Tracking servo drive signal output (+)
87	FFDR	O	Focus servo drive signal output (+)
88	DVDD1		Power supply terminal (+3.3V) (Digital system)
89	FRDR	O	Focus servo drive signal output (-)
90	FS4	O	176.4kHz clock signal output (MCLK system) Not used this set (OPEN)
91	SRDR	O	Sled servo drive signal output (+)
92	SFDR	O	Sled servo drive signal output (-)
93	SPRD	O	Spindle servo drive signal output (+)
94	SPFD	O	Spindle servo drive signal output (-)
95	DCLO	O	Not used (OPEN)

Pin No.	Pin Name	I/O	Function and Operation
96	DCLI	I	Not used (Fixed at "H")
97	XDCL	O	Not used (OPEN)
98	OFTRK	O	Offtrack signal output Not used this set (OPEN)
99	COUT	O	Traverse count signal output Not used this set (OPEN)
100	DVSS2		Ground terminal (Digital system)

CXD2535CR-1



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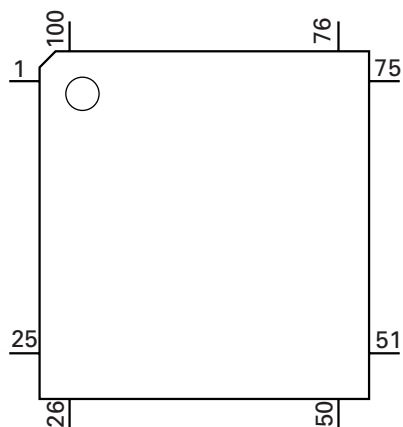
● Pin Functions(CXD2536R)

Pin No.	Pin Name	I/O	Function and Operation
1	VDD		Power supply terminal (+3.3V)
2	SWDT	I	Write data signal input from the system controller (IC600)
3	SCK	I	Serial clock signal input from the system controller (IC600)
4	XLAT	I	Serial latch signal input from the system controller (IC600)
5	SRDT	O	Read data signal output to the system controller (IC600)
6	SENSE	O	Internal status (SENSE) output to the system controller (IC600)
7	SMDO	I	Serial command control mode input from the system controller (Fixed at "H")
8	SMDI	I	Serial command control mode input from the system controller (Fixed at "H")
9	XINT	O	Interruption status output to the system controller (IC600)
10	RCPB	I	Record/playback selection signal input (Fixed at "L")
11	WRMN	I	Write/monitor mode selection signal input from the system controller (Fixed at "L")
12	TX	I	Writing data transmission timing input from the system controller Used together with the magnetic field head ON/OFF output (Fixed at "L")
13	VSS		Ground terminal
14	SICK	I	Chip reserve terminal (Fixed at "H")
15	IDSL	I	Chip reserve terminal (Fixed at "H")
16	XILT	I	Chip reserve terminal (Fixed at "H")
17	XRST	I	Reset signal input from the system controller (IC600) When reset: "L"
18-21	TS0-TS3	I	Test input terminal (Fixed at "L")
22	EXIR	I	Chip reserve terminal (Fixed at "H")
23	SASL	I	Single use the block selection "L":ATRAC,"H":RAM controller (Fixed at "L")
24	SGL	I	Normally fixed at "L",Fixed at "H" when the ATRAC or RAM controller is single used (Fixed at "L")
25	VSS		Ground terminal
26	AIRCPB	O	Record/playback mode signal output terminal of the ATRAC or external audio block Not used this set (OPEN)
27	XRQ	I/O	XRQ signal input/output terminal of the ATRAC interface Not used this set (OPEN)
28	ADTO	I/O	Decoder data signal input/output terminal of the ATRAC Not used this set (OPEN)
29	ADTI	I/O	Encoder data signal input/output terminal of the ATRAC Not used this set (OPEN)
30	XALT	I/O	Data ready and XALT signal input/output terminal of the ATRAC interface Not used this set (OPEN)

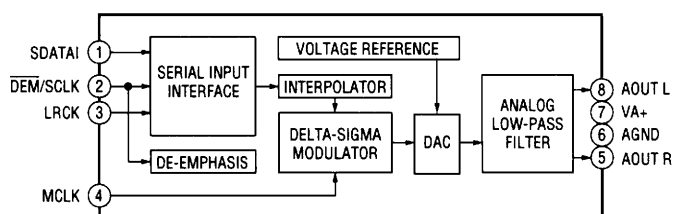
Pin No.	Pin Name	I/O	Function and Operation
31	ACK	I/O	ACK signal input/output terminal of the ATRAC interface Not used this set (OPEN)
32	AC2	I/O	Error data signal input/output terminal of the ATRAC interface Not used this set (OPEN)
33	LCHST	I/O	Lch Start data signal input/output terminal of the ATRAC interface Not used this set (OPEN)
34	EXE	I/O	EXE signal input/output terminal of the ATRAC interface Not used this set (OPEN)
35	MUTE	I/O	MUTE signal input/output terminal of the ATRAC interface Not used this set (OPEN)
36	OSCO	O	45.1584MHz clock oscillation output
37	OSCI	I	45.1584MHz clock oscillation input
38	VSS		Ground terminal
39	ATT	I/O	ATT signal input/output terminal of the ATRAC interface Not used this set (OPEN)
40	F86	O	11.6msec timing signal output terminal of the ATRAC block Not used this set (OPEN)
41	DOUT	O	Monitor/audio decode data signal output to the D/A converter (IC550)
42	ADIN	I	Recording data signal input Not used this set (Fixed at "L")
43	ABCK	O	Bit clock signal output Not used this set (OPEN)
44	ALRCK	O	L/R clock signal output to the D/A converter (IC550)
45-47	SA2-SA0	O	Address signal output Not used this set (OPEN)
48,49	A11,A10	O	Address signal output Not used this set (OPEN)
50	VSS		Ground terminal
51	VDD		Power supply terminal (+3.3V)
52-55	A03-A00	O	Address signal output to the RAM (IC501)
56-60	A04-A08	O	Address signal output to the RAM (IC501)
61	XOE	O	Output enable control signal output to the RAM (IC501)
62	XCAS	O	Column address strobe signal output to the RAM (IC501)
63	VSS		Ground terminal
64	XCS	O	Chip select signal output Not used this set (OPEN)
65	A09	O	Address signal output to the RAM (IC501)
66	XRAS	O	Row address strobe signal output to the RAM (IC501)
67	XWE	O	Reading/Writing control signal output to the RAM (IC501)
68,69	D1,D0	I/O	RAM (IC501) data bus
70,71	D2,D3	I/O	RAM (IC501) data bus
72-74	D4-D6	I/O	Data bus Not used this set (OPEN)
75	VSS		Ground terminal
76	D7	I/O	Data bus Not used this set (OPEN)
77	ERR	I/O	Input/output terminal of the error (C2PO) data signal to the external RAM Not used this set (OPEN)
78	EXTC2R	I	External RAM selection signal input for the error data writing (When "H":External RAM) (Fixed at "L")
79	BUSY	O	BUSY signal output of the RAM access Not used this set (OPEN)
80	EMP	O	Empty or before the full of the ATRAC data (When DSC=ASC+1:"H") Not used this set (OPEN)
81	FUL	O	Full or before the empty of the ATRAC data (When ASC=DSC+1:"H") Not used this set (OPEN)
82	EQL	O	Empty of the ATRAC data (When DSC=ASC:"H")
83	MDLK	O	Indicate the main/sub of the recording or playback data (When sub and linking:"H", When the main:"L") Not used this set (OPEN)
84	CPSY	O	Interpolation sync signal output Not used this set (OPEN)
85	CTMD0	O	DSC (Difference Signal Control) counter mode output Not used this set (OPEN)
86	CTMD1	O	DSC (Difference Signal Control) counter mode output Not used this set (OPEN)
87	SPO	O	System clock (512Fs=22.5792MHz) signal output to CXD2535CR (IC200) and D/A converter (IC550)
88	VSS		Ground terminal
89	MDSY	O	Sync detection signal output of the main data Not used this set (OPEN)
90	LRCK	I	L/R clock (44.1kHz) signal input from CXD2535CR (IC200)

Pin No.	Pin Name	I/O	Function and Operation
91	BCK	I	Bit clock (2.8224MHz) signal input from CXD2535CR (IC200)
92	C2PO	I	C2PO (indicate the error mode of the data) signal input from CXD2535BR (IC200) When playback:C2PO ("H"), When digital recording:D.IN-Vflag, When analog recording:"L"
93	DATA	I/O	When recording:Record audio data signal output (Not used this set) When playback:Playback audio data signal input from CXD2535CR (IC200)
94	DIDT	I	16-bit data input terminal for the digital audio in Not used this set (Fixed at "L")
95	DODT	O	16-bit data output terminal for the digital audio out Not used this set (OPEN)
96	DIRCPB	O	Disc drive,Record or playback mode output of the EFM encoder/decoder Not used this set (OPEN)
97	MIN	I	Defect ON/OFF selection signal input from CXD2535CR (IC200)
98	SPOSL	I	IN/OUT selection input terminal of the pin 87 ("L":IN,"H":OUT) (Fixed at "H")
99	MCK	O	Internal master clock signal output terminal of the RAM controller
100	VSS		Ground terminal

CXD2536R



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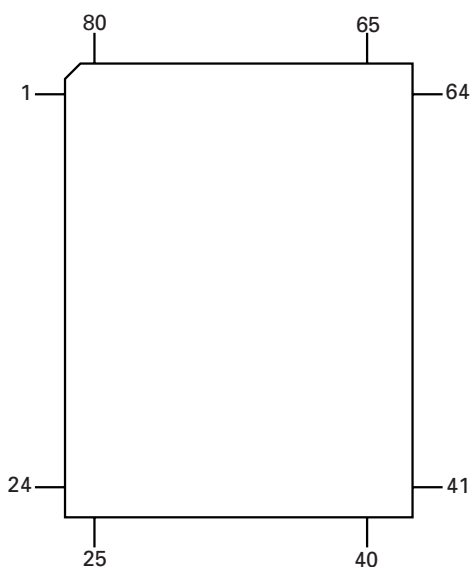


● Pin Functions(CXP84340-090Q)

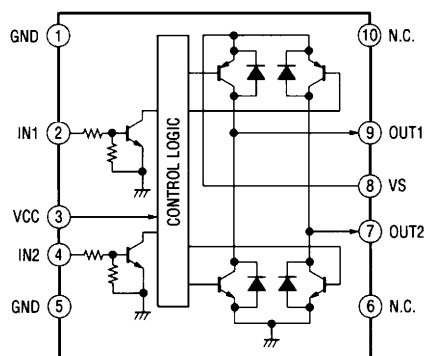
Pin No.	Pin Name	I/O	Function and Operation
1-5	T13-T17	I	Test key (4 × 8 matrix) signal output terminal (Fixed at "L")
6	M1	O	Elevator motor (M904) drive signal output (UP) *1
7	M1	O	Elevator motor (M904) drive signal output (DOWN) *1
8	M2	O	Loading motor (M903) drive signal output *2
9	M2	O	Loading motor (M903) drive signal output *2
10	MDMON	O	Power control output (Mechanism deck system) Power ON:"H"
11	LES	I	Detection signal input from the loading end sensor switch (S902)
12	SES	I	Detection signal input from the store end sensor switch (S903)
13	HOME	I	Detection signal input from the home position switch (S901) Home position:"L"
14	DCS1	I	Detection signal input from the disc1 switch (S611) No disc "L"
15	DCS2	I	Detection signal input from the disc2 switch (S612) No disc "L"
16	DCS3	I	Detection signal input from the disc3 switch (S613) No disc "L"
17	DCS4	I	Detection signal input from the disc4 switch (S614) No disc "L"
18	DCS5	I	Detection signal input from the disc5 switch (S615) No disc "L"
19	DCS6	I	Detection signal input from the disc6 switch (S616) No disc "L"
20	CH/SINGLE	I	Changer/single setting up terminal When used the changer:"H" (Fixed at"H")
21	ILLON	O	Lamp (PL620) drive signal output for illumination When lamp is ON:"H"
22-29	N.C.	O	Not used (OPEN)
30	RST	I	System reset signal input When reset:"L"
31	EXTAL	I	10MHz system clock signal input
32	XTAL	O	10MHz system clock signal output
33	VSS	-	Ground terminal
34	TX	O	32.768kHz clock signal output for a clock
35	TEX	I	32.768kHz clock signal input for a clock
36	AVSS	-	Ground terminal (Analog system)
37	AVREF	-	Reference voltage (+5V) input for the A/D converter
38	INIT	I	Initial reset signal input (Normally:"H")
39	TEMP	I	Temperature detection signal input
40	EHS	I	Disc high position detection signal input
41	N.C.	O	Not used (OPEN)
42	EE-CS	O	Chip select signal output for a EEPROM Not used this set (OPEN)
43	EE-CKO	O	Serial clock signal output for a EEPROM Not used this set (OPEN)
44	EE-SIO	I/O	Data signal input/output for a EEPROM Not used this set (OPEN)
45	MD-SO	O	Write data signal output to RF AMP (IC100), CXD2535CR(IC200) and CXD2536CR (IC500)
46	LNKOFF	O	LINK OFF signal output for serial communications Not used this set (OPEN)
47	UNIREQ	O	Request signal output for serial communications Not used this set (OPEN)
48	UNICKI	I	Clock signal (serial communications) input
49	UNISI	I	Data signal (serial communications) input
50	UNISO	O	Data signal (serial communications) output
51	MD-CKO	O	Serial clock signal output to RF AMP (IC100), CXD2535CR (IC200) and CXD2536CR (IC500)
52	MD-SI	I	Read data signal input from CXD2535CR (IC200) and CXD2536CR (IC500)
53	N.C.	O	Not used
54	SENS	I	Internal status (SENS) input from CXD2535CR (IC200) and CXD2536CR (IC500)
55	CC-XINT	I	Interruption status input from CXD2536CR (IC500)
56	LIMIT-SW	I	Detection signal input from the limit switch (S400) When sled limit in:"L"
57	DOOR-SW	I	Detection signal input from the door open/close switch (S620) When open:"L"
58	MD-LAT	O	Serial latch signal output to RF AMP (IC100), CXD2535CR (IC200) and CXD2536CR (IC500)
59	MD-RST	O	Reset signal output to RF AMP (IC100), CXD2535CR (IC200) and CXD2536CR (IC500) When reset "L"
60	BU-IN	I	Battery detection signal input
61	BUS-ON	I	BUS-ON detection signal (serial communications) input BUS ON:"L"
62	SQSY	I	Sub-code Q sync (SCOR) input from CXD2535CR (IC200) "L" every 13.3msec, Almost "H"
63	STR-SW	I	Detection signal input from the STOP switch (S600)
64	FOK	I	Focus OK signal input from CXD2435CR (IC200) "H" is input when the focus is applied
65	MD-ON	O	Power control signal output (Servo system) Power ON : "H"

Pin No.	Pin Name	I/O	Function and Operation
66	EMPH-O	O	Deemphasis control signal output to the D/A converter (IC550) Deemphasis ON "L"
67	A-MUT	O	Audio mute signal output When mute : "H"
68	N.C.		Not used (OPEN)
69	CLOCK	O	Clock signal output for test mode indication Not used this set (OPEN)
70	DATA	O	Data signal output for test mode indication Not used this set (OPEN)
71	TM-ON/OFF	I	Test mode set up terminal Normolly : "H" When test mode : "L"
72	VDD		Power supply terminal (+5V)
73	N.C.		Not used (Fixed at "H")
74	TO0	O	Test key (4×8 matrix) signal output terminal (OPEN)
75	TO1	O	Test key (4×8 matrix) signal output terminal (OPEN)
76	TO2	O	Test key (4×8 matrix) signal output terminal (OPEN)
77	TO3	O	Test key (4×8 matrix) signal output terminal (OPEN)
78	TI0	I	Test key (4×8 matrix) signal input terminal (Fixed at "L")
79	TI1	I	Test key (4×8 matrix) signal input terminal (Fixed at "L")
80	TI2	I	Test key (4×8 matrix) signal input terminal (Fixed at "L")

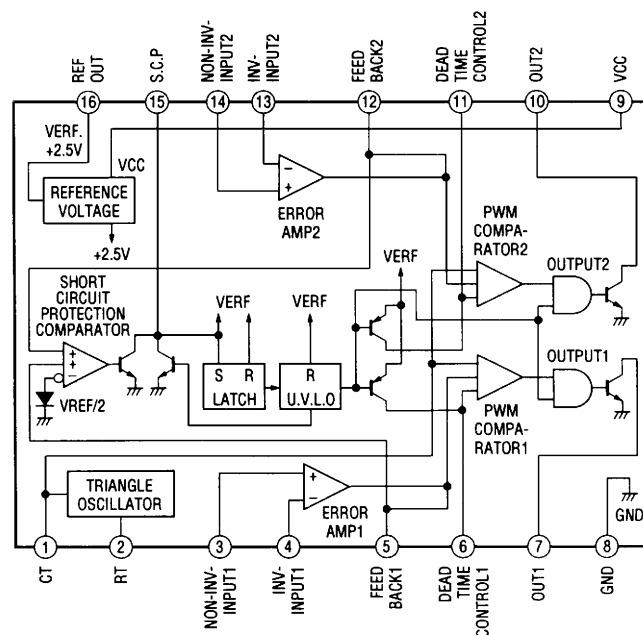
CXP84340-090Q



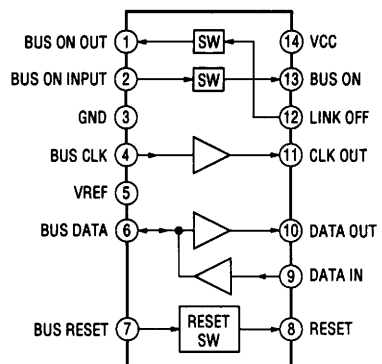
LB1638M



TL1451ACDB-E20



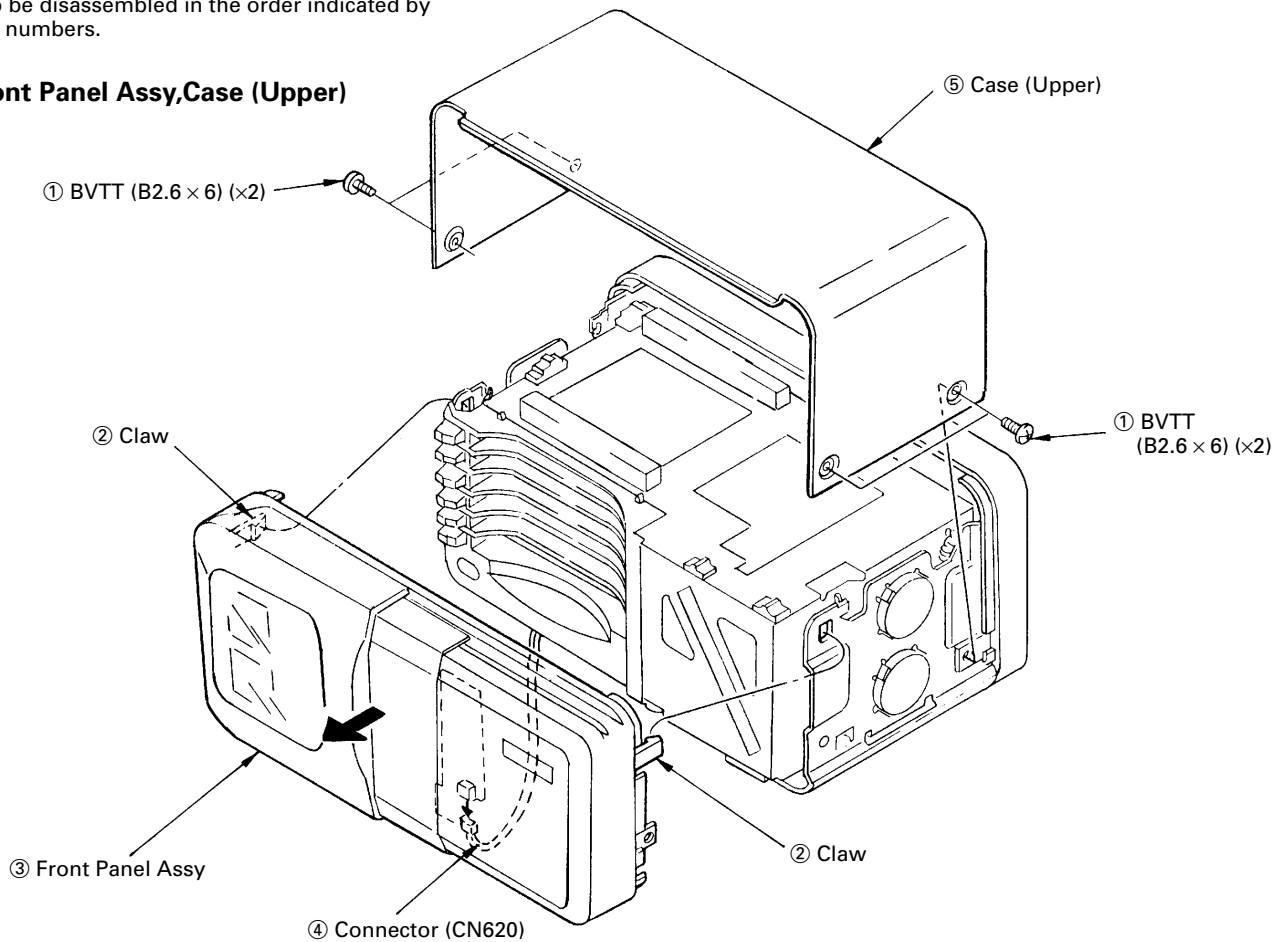
MM1284XFFE



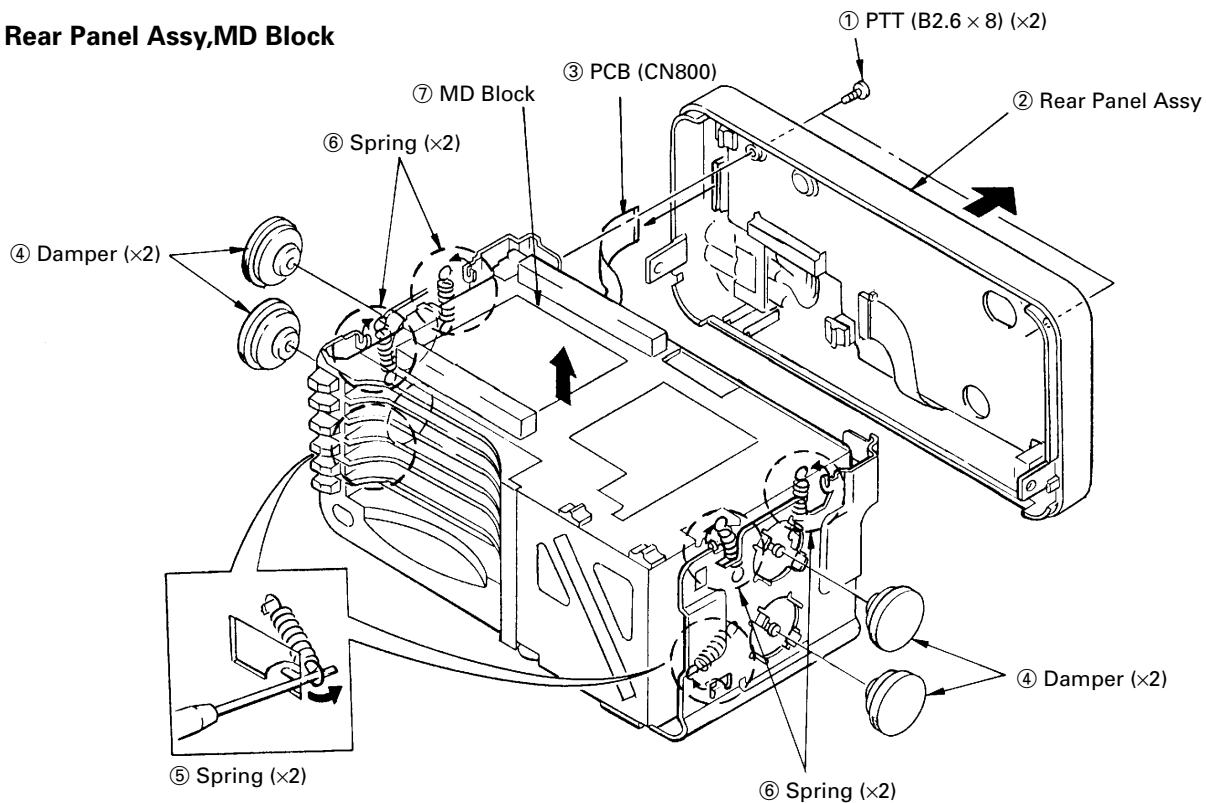
7.2 DISASSEMBLY

• Parts indicated as ① and so on in the illustration are to be disassembled in the order indicated by these numbers.

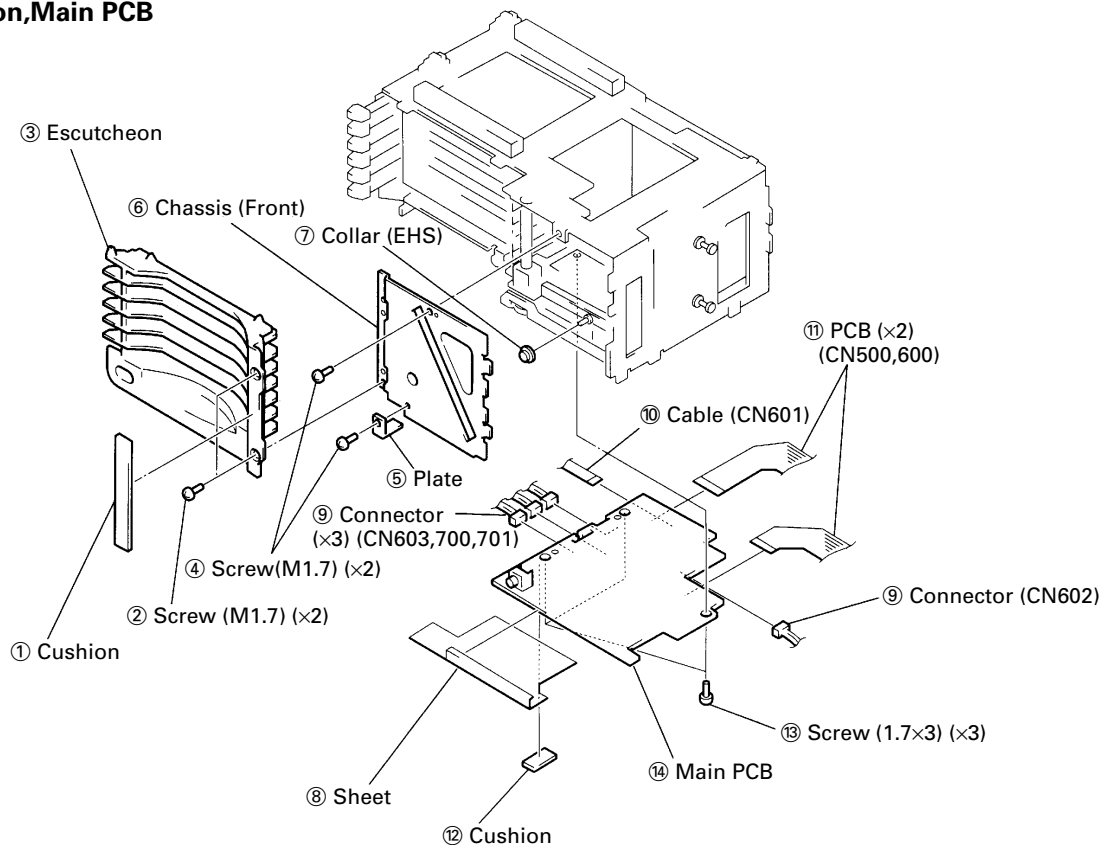
● Front Panel Assy, Case (Upper)



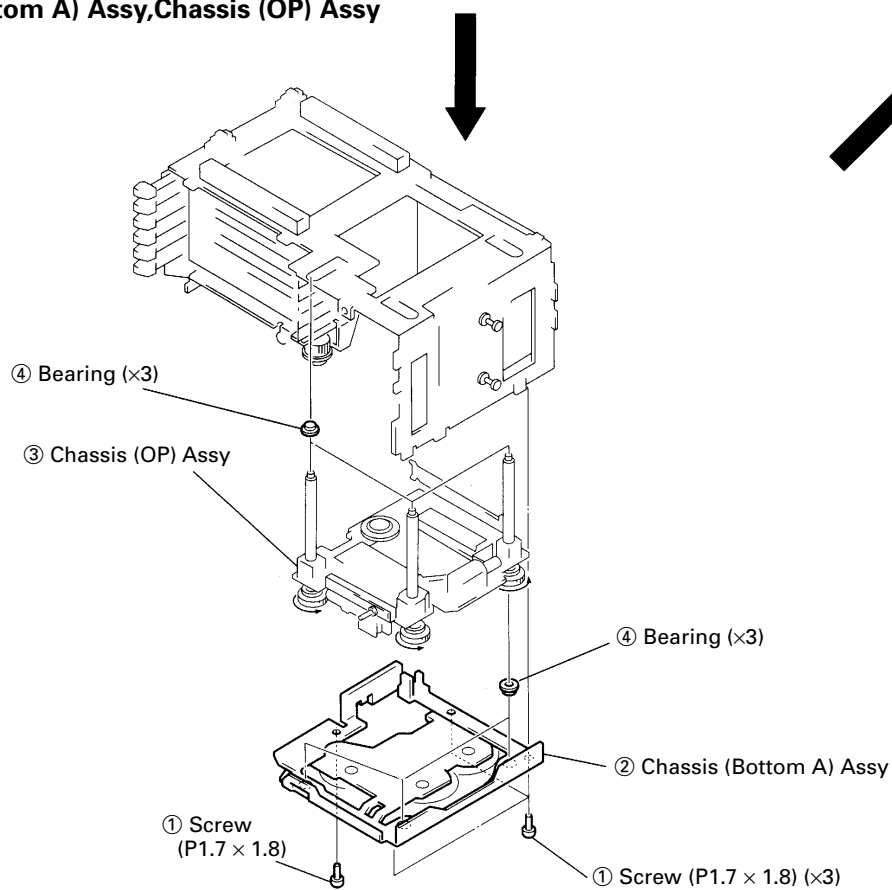
● Rear Panel Assy, MD Block



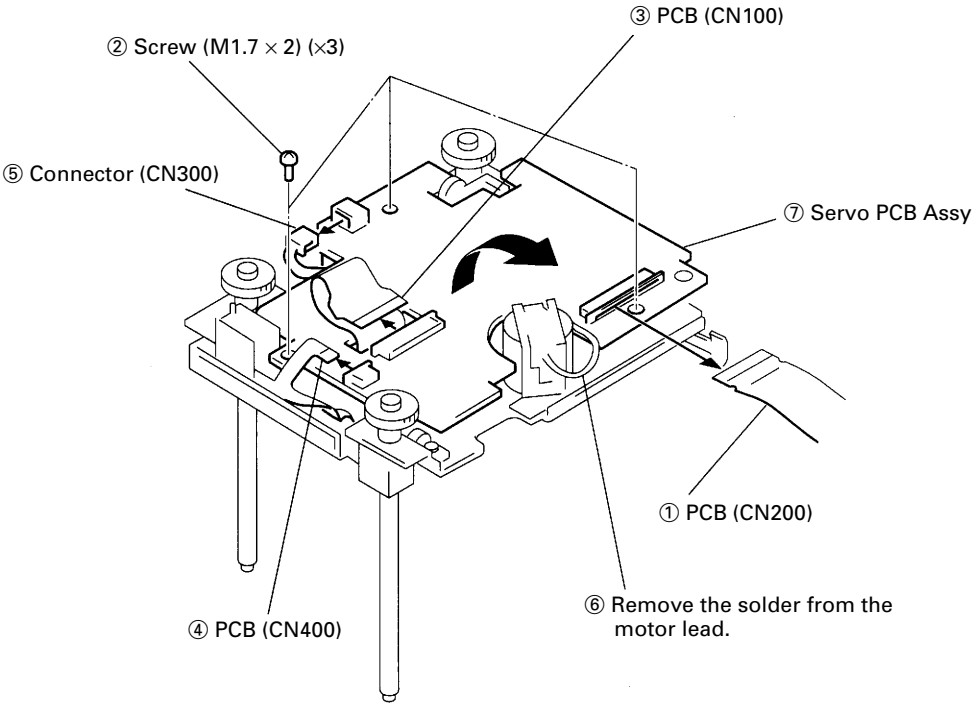
● Escutcheon, Main PCB



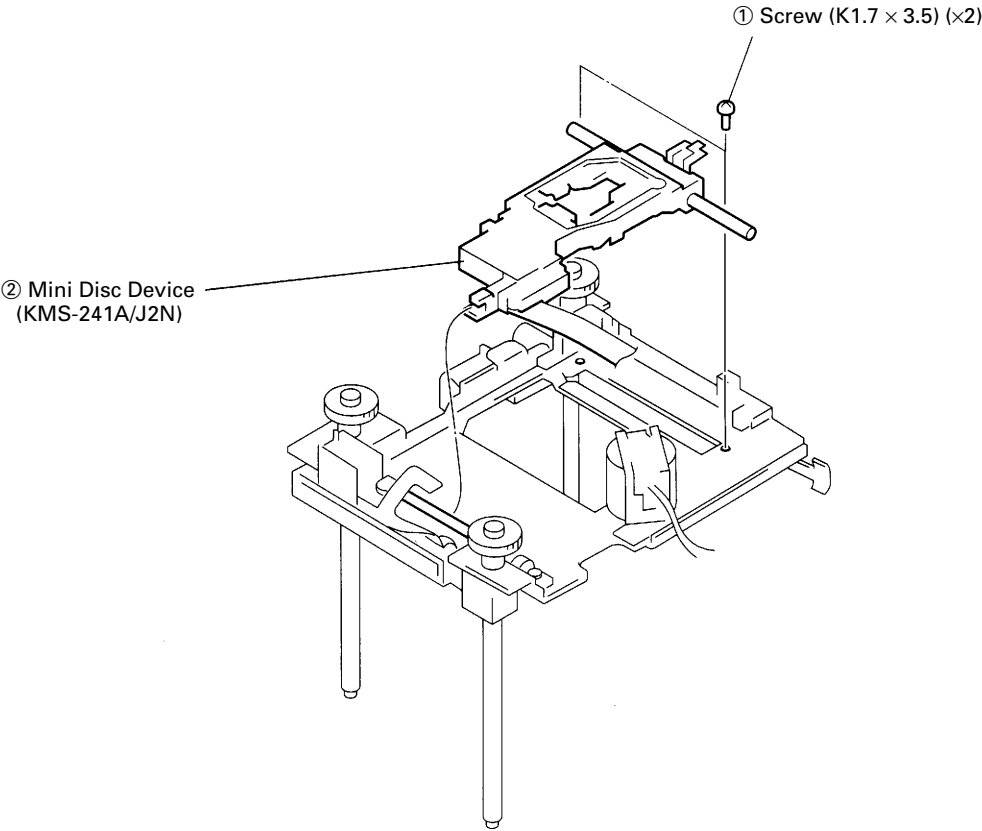
● Chassis (Bottom A) Assy, Chassis (OP) Assy



● Servo PCB

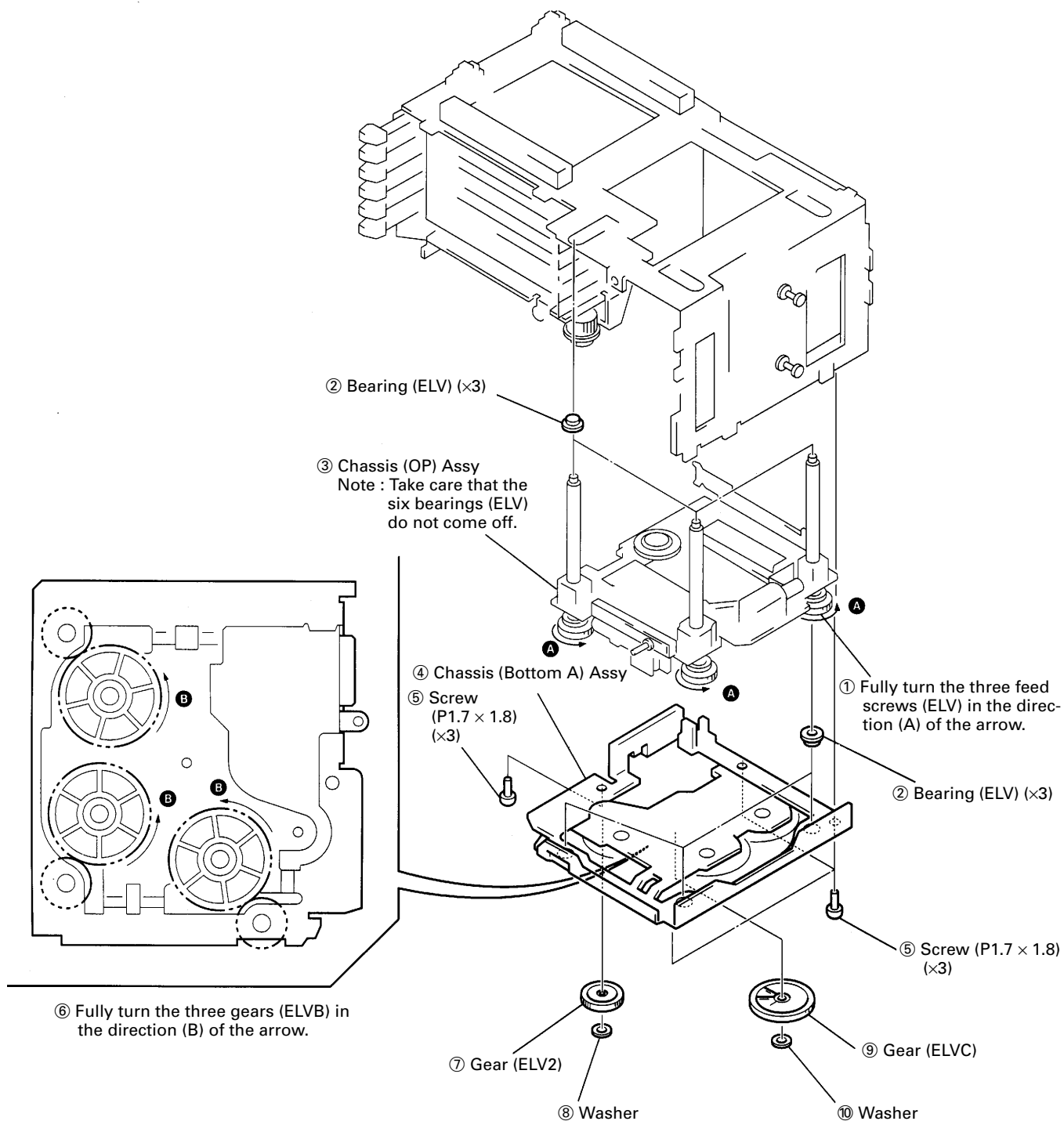


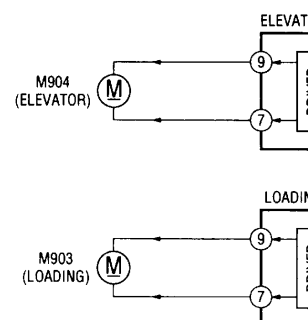
● Mini Disc Device



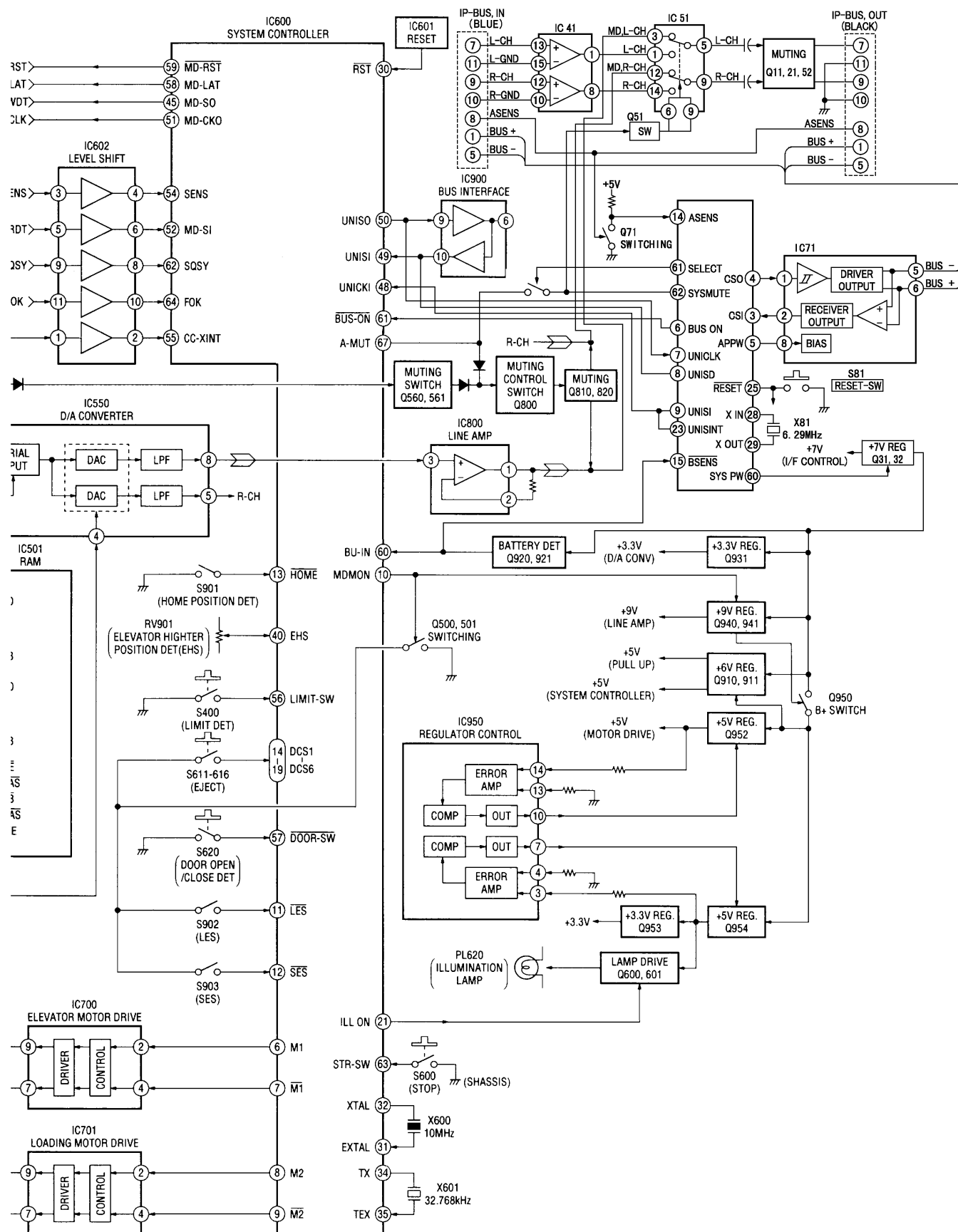
● Precautions on Reassembling the Chassis (OP) Assy

- Parts indicated as ① and so on in the illustration are to be reassembled in the order indicated by these numbers.





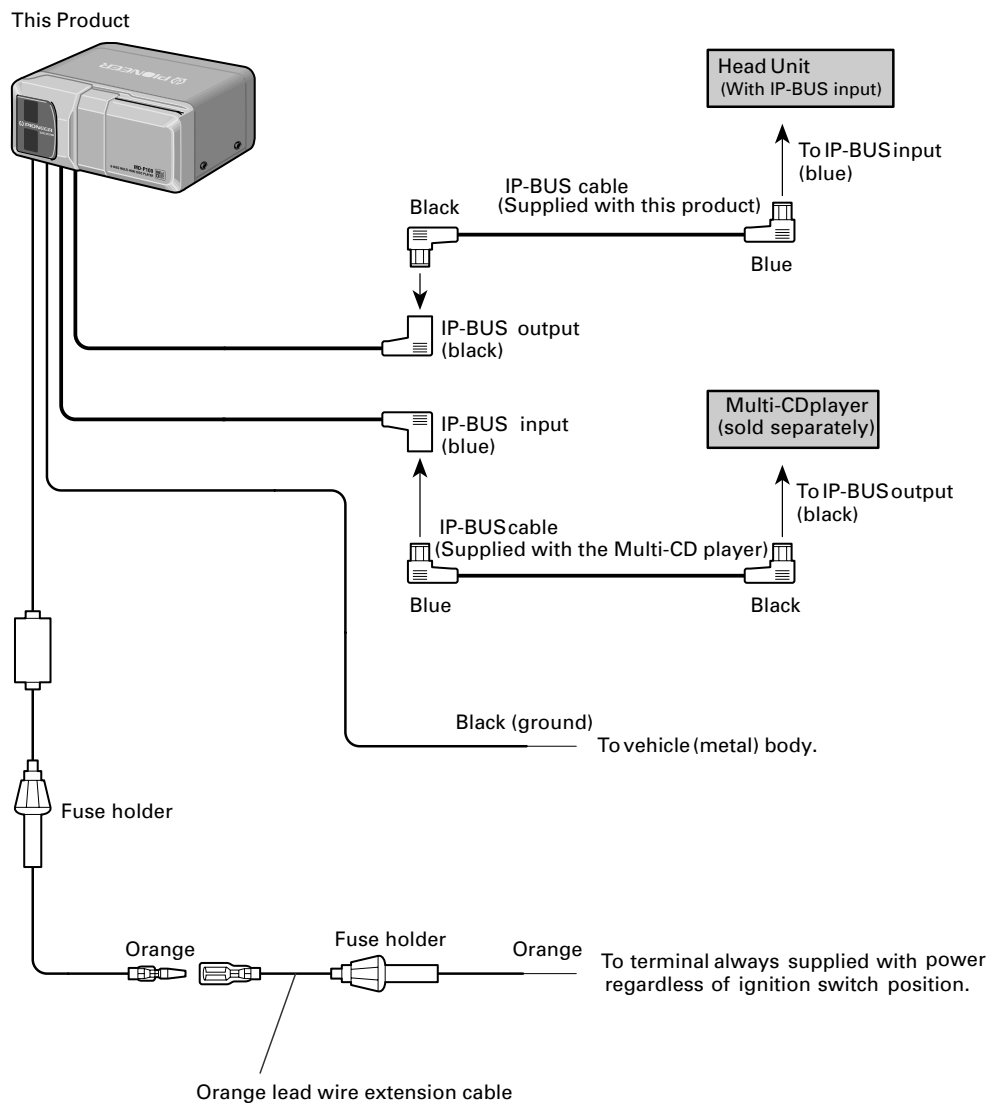
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8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

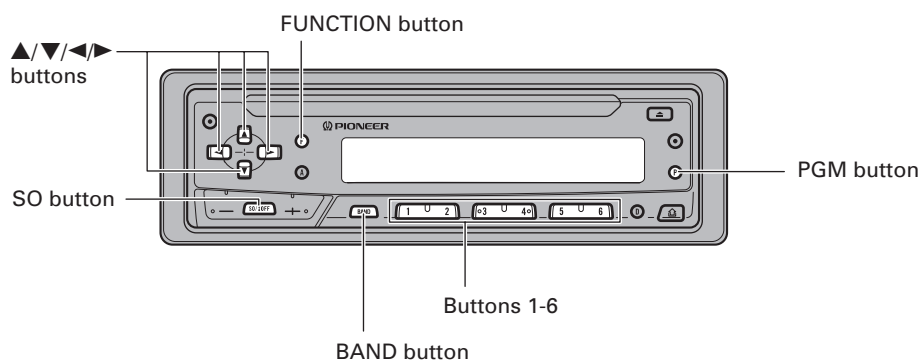
● Connection Diagram



Key Finder

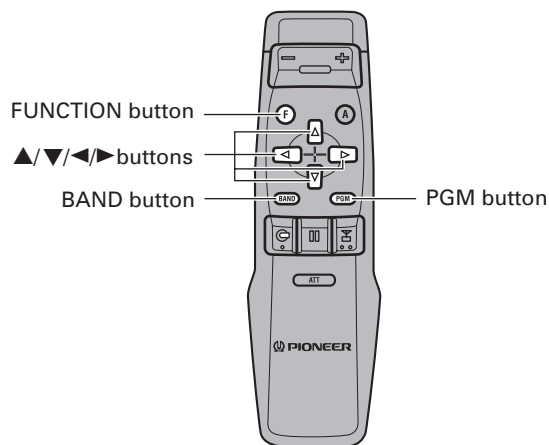
Operate Multi-MD Player functions with the buttons shown below.

Head Unit (e.g. DEH-P645R)



Remote Controller (e.g. DEH-P645R)

Operation is the same as when using buttons on the head unit.



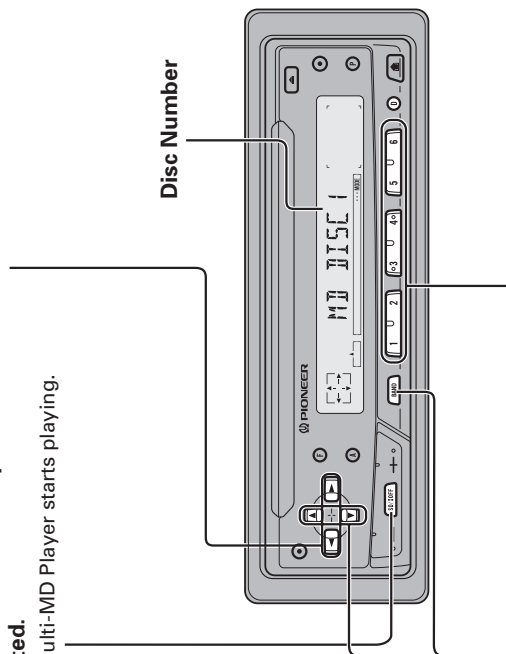
Basic Operation

Basic Operation of Multi-MD Player

Selecting the Multi-MD Player Source

- Press the SO button repeatedly until the Multi-MD Player is selected.

The Multi-MD Player starts playing.



Disc Search

- Press the ▲ or ▼ button to select the desired disc. (Disc Up/Down)
- Press the BAND button to select the desired disc. (Disc Up)

Disc Number Search

- You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:

- If you switch to the Fast Forward/Reverse Mode, the ◀ and ▶ buttons operate Fast Forward/ Reverse.
- The player reads and memorizes music data recorded on an MD before reproducing it. Because of this, you can enjoy the following features.
 - * When the last track on an MD has finished, the player automatically changes to the next MD. Because this change occurs while music data is being played from memory, the interval between the end of the last track on one MD and the start of the first track on the next is shorter.
 - * During the time taken to switch between MDs using Disc Search, memorized music data of the previous track is played at reduced volume level.

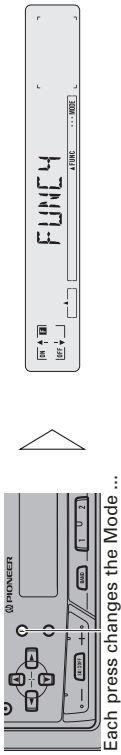
Entering the Function Menu

The Function Menu lets you operate simple functions for the Multi-MD Player.

Note:

- After entering the Function Menu, if you do not perform an operation within about 30 seconds, the Function Menu is automatically canceled.

1. Select the desired mode in the Function Menu. (Refer to "Function Menu Functions".)



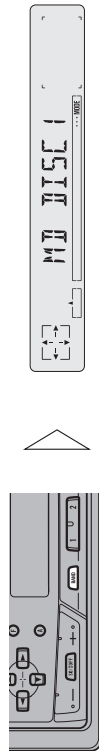
Note:

- When you select the Function Menu, Mode indications (e.g. FUNC4) light for about 2 seconds. After Mode indications have disappeared, the "F" indicator flashes to inform you that you are in the Function Menu. If you cancel the Function Menu, the "F" indicator goes out.

2. Operate a mode. (e.g. Repeat Play)



3. Cancel the Function Menu.



Basic Operation

Function Menu Functions

The following chart shows functions in the Multi-MD Player Function Menu. This chart shows the function operation and button for each function. For details concerning an operation, refer to the page indicated.

● Multi-MD Player		
Function name (Display)	Button	:Operation
Display Mode (FUNC1)	▲ or ▼	:Select
Random Play (FUNC2)	▲ or ▼ (Hold for 2 seconds)	:Select
Scan Play (FUNC3)	▲ or ▼	:Select
Repeat Play (FUNC4)	▲ or ▼	:Select
Track Selection Mode (AUTO/MANUAL)	◀ or ▶	:Select

8.2 SPECIFICATIONS

Power source 14.4 V DC (10.8 – 15.1 V allowable)
Grounding system Negative type
Max. current consumption 0.8 A
Dimensions 176 (W) × 83.5 (H) × 133 (D) mm
Weight 1.2 kg
System Mini disc digital audio system
Usable discs Mini disc
Frequency characteristics .. 20 – 20,000 Hz (±1 dB)
Signal-to-noise ratio 95 dB (1 kHz) (IEC-A network)
Output level 1 V (1 kHz, 0 dB)
Number of channels 2 (stereo)